The Last Minute Revision



An all time Companion for PG medical entrance exams

Updated from the latest editions of Harrisons (18/e). Sabiston. Robbins. Nelson, Ganong and other standard textbooks

for
AIIMS, PGIMER, AIPGME, NEET-PG
JIMPMER, DNBCET, and Other, Examinations

Revised and Updated
2nd Edition

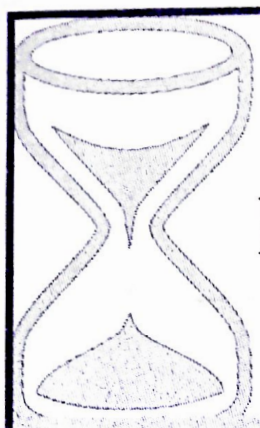
Javed

Eponymous topics
Most Handy topics of all subjects
Radiological signs & Characteristic appearances
Classification system
List of most common in cancers and staging systems
Investigations of choice
Clinical tests of choice
Named operative procedures
Student friendly mnemonics
300 syndromes...and..counting....
Drug regimens
Infections
Clinical signs

PARAS Medical Books

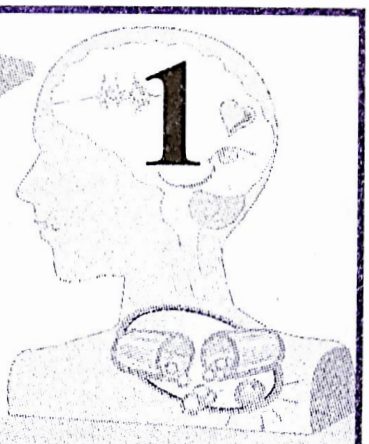
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CHAPTER 1

NAMED THINGS (EPONYMS)



Named Nerves

1. Arnolds nerve → Auricular branch of 10th nerve
2. Criminal nerve of Grassi → Br. of Posterior Gastric Nerve
3. Jacobson's nerve → Tympanic branch of 9th nerve
4. Nervus intermedius of Wrisberg → Sensory component of Facial (7)
5. Nerve of Latarjet → Branch of anterior Gastric nerve
6. Nerve of Bell → Nerve to Serratus Anterior
7. Nerve of Kuntz → Grey rami running up from 2nd thoracic
8. Vidian nerve → Nerve to Pterygoid Canal (7th)

Named Fasciae

1. Bucks fascia → Deep fascia of penis
2. Camphors fascia → Superficial fatty layer of abdomen
3. Colles fascia → Membranous layer of superficial fascia of perineum
4. Colles fascia → Deep cervical fascia
5. Denovilliers fascia → Rectovesical fascia that separates posterior surface of prostate from rectum

Prostate from rectum.

6. Fascia lata → Deep fascia of thigh
7. Fascia of Waldeyer → Condensed pelvic fascia behind rectum

presacral fascia

8. Fascia bulbi → Covering around eye
9. Gerotas fascia → Covering around kidney/ Adrenal
10. Glissons Capsule → Liver
11. Sibsons fascia → Supra pleural membrane (apex of lung)
12. Scarpas fascia → Deep membranous layer of Abdomen

Named Spaces

1. Space of Larrrey → Foramen of Morgagni in diaphragm
2. Space of Parona → Subtendinous space of wrist- bw tendons of FDP, FPL, pronator quadratus
3. Morrison Pouch → Hepatorenal recess of Subhepatic space
4. Pouch of Douglas → Recto uterine pouch
5. Space of Retzius → Retropubic space-between pubic symphysis and urinary bladder
6. Space of Disse → Liver ≠ cells Ito

Named Laws

1. Bell Magendie law → Dorsal roots are sensory / Anterior are motor
   DSVM.
2. Bernoullie principle → applies to nasal polyps
3. Curvoisiers law → presence of an enlarged gallbladder which is nontender and accompanied with mild jaundice, the cause is unlikely to be gallstones
4. Frank Starling law → Stroke volume
5. Flick Imbert law → Applantation tonometry [IOP]
6. Goodsall rule → Perianal fistula (fistula-in-ano)
7. Henry law → for color vision

8. Inverse square law → Radiotherapy
9. Law of Laplace → Heart=Dilated cardiomyopathy = If the radius of the heart excessively increases (becomes dilated), and tension during contraction has plateaued, the pressure (generated by the contraction) falls, which reduces the stroke volume.
10. Law of Projection → Phantom limb
11. Sherrington's law → Extra ocular muscles: The antagonist of tight muscle will be inhibited through impaired reciprocal inhibition
12. Siemen's law → larynx = adductors are centrally located and abductors are in periphery (used in tumors of larynx)
13. Weber Freschner law → subjective sensation is proportional to the logarithm of the stimulus intensity
14. Weigert Mayer rule → Duplication of ureters → ureter from a upper pole moiety inserts into a more inferior and medial location than lower pole moiety
15. Wegener Grossman rule → Crico thyroid is supplied by Superior Laryngeal (SLN)

Named Triads

- Albinism → Black locks + oculo cutaneous albinism + sensorineural hearing loss
- Alkaptonuria → Ochronic arthritis + ochronotic pigmentation + urine darkening on standing
- Alport's syndrome → Progressive renal failure + sensorineural hearing loss + Lenticonus

- Anderson triad → Vit A deficiency +bronchiectasis + cystic fibrosis
- Balint's syndrome triad → Simultagnosia + optic ataxia + occulomotor apraxia
- Bechet's syndrome → Recurrent oral ulcers + genital ulcers + iridocyclitis
- Becks triad (Cardiac tamponade) → Muffled heart sounds + Hypotension + Distended neck veins
- Biotin deficiency → Glossitis + alopecia + dermatitis
- Charcot's triad (cholangitis) → Pain + fever + jaundice
- Cushing's reflex → Bradypnea + bradycardia + hypotension
- Fallot Tetralogy (mnem :PROVe) → PS+RVH+Overriding of aorta+VSD
- Fallot pentalogy → PS + RVH + Over of aorta + VSD + ASD
- Fallot Triology → RVH+ASD+PS
- Fanconi syndrome triad → Aminoaciduria + proteinuria + phosphaturia
- Female athlete triad → Eating disorders+ amenorrhoea + decreased bone mineral density
- Gradenigos triad (petrositis) → Sixth nerve palsy,+deep seated retro orbital pain+ persistent ear discharge
- Grancher's triad (early pulmonary TB) → Lessened quality of breathing + snodaic resonance + increased vocal fremitus
- Hemolytic uremic syndrome → Anemia+ thrombocytopenia + renal failure
- Hutchison triad (congenital syphilis) → hutchison teeth + interstitial keratitis + nerve deafness
- Kartagener's triad → Sinusitis+ bronchiectasis + inversus(situs)[SBI]

- Kwarshiorkar → Edema + growth retardation + mental changes
- Miller Fisher syndrome → Ataxia + areflexia+ acute external ophthalmoplegia
- Oslers triad → Telangectasias + capillary fragility + hereditary hemorrhagic diathesis
- Pentad of Thrombotic Thrombo-cytopenic Pur-pura → Microangiopathic hemolytic anemia+fever+renal failure+ thrombocytopenia +disturbed neurological function
- Parkinson's triad → Pin rolling tremors + rigidity + bradykinesia
- Reiter's syndrome → Urethritis + conjunctivitis + arthritis
- Rigler's triad (gall stone ileus) → Ectopic gall stones+small bowel obstruction+pneumobilia
- Renal cell carcinoma → Hematuria + pain + mass
- Reynolds pentad (acute suppurative cholangitis) → Abdominal pain+ fever+ jaun-dice+ shock +altered sensorium
- Still's disease → Persistent high spiking fever+ joint pains+ salmon colored rash
- Tetany in children → Stridor +carpo pedal spasm + convulsions
- Trotter's triad → Conductive deafness + immobility of soft palate + facial palsy
- Virchow's triad → Endothelial injury + stasis + hypercoagubility
- Wilm's tumor → Hematuria+fever+renal mass

1. Saints triad → (Diverticulosis) + (Gall stones) + (Hiatus hernia)
2. Murphy's triad → (Pain in right iliac fossa) + (Vomittings) + (Fever)
3. Charcot's triad (cholangitis) → (Pain abdomen) + (Jaundice) + (Fever)

Reynold's pentad. → Charcots + Shock + Altered mental

4. Hemobilia triad (Quinckes triad) → Colicky pain + Obstructive jaundice + Melena
5. Dieulfoys triad → Hyperasthesia + Tenderness over McBurney point + Muscle contraction
   (Appendicitis)
6. Burkchardt triad → Gastric Volvulus
   1. Retching
   2. Inability to vomit
   3. Inability to pass Naso Gastric tube
7. Mecklezrs triad → Esophageal rupture
   - Vomitting
   - Pain
   - Subcutaneous Emphysema
8. RCC – Hematuria
   – Pain
   – Renal mass
9. Wilms tumor → Hematuria, Fever, Renal mass
10. Carneys triad → Pulmonary Chordoma, ParaGanglioma, Gastric Fibroid
11. Whipples triad (Insulinoma)
    1. Signs/Symptoms suggestive of hypoglycemia
    2. RBS of < 50 gm
    3. Relief of signs of hypoglycemia after treatment

12. Triad of Choledochal cyst → Pain + Jaundice + Abdominal lump

13. Sampters triad (ENT) → SAmPters triad
    - Asthma
    - Sensitive to Aspirin
    - Polyps

14. Triad of O'Donghue →
    - Anterior Cruciate Ligament
    - Medial Collateral Ligament
    - Medial meniscus

15. **Vogts triad**

    1. In tuberous sclerosis
       - Facial nevus (adenoma sebaceum)
       - Seizures
       - Mental insufficiency
    2. In congenital glaucoma/buphthalmos (BPL)
       - Blepharospasm
       - Photophobia
       - Lacrimation
    3. In congenital toxoplasmosis (3C)
       - Congenital cataract
       - Chorioretinitis
       - Cerebral calcification (diffuse)
    4. In post congestive glaucoma (GAP)
       - Glaucomfleken (Ant cortical opacity)
       - Iris Atrophy (stromal)
       - Pigment on the corneal endothelium

Named Foramina

- Foramen of Winslow → Epiploic foramen/ Omental foramen
- Foramen of Magendie → Median aperture between 4th ventricle and Cisterna magna
- Foramen of Lushka → Lateral apertures between 4th ventricle and Cisterna magna

- Foramen of Monro → Between Lateral ventricles & 3rd ventricle
- Optic Foramen → Opening to optic canal
- Foramen Magnum → Medulla oblongata exits as spinal cord
- Foramen of Morgagni → Right anterior diaphragm (Congential Dislocation of Hip(CDH)
- Sinus of Morgagni → Behind nasopharynx (TVP/LVP/Eustachian tube)
- Cyst of Morgagni → Differential diagnosis of torsion testis
- Fossa of Rosenmuller → MC site of nasopharyngeal carcinoma
- Foramen Spinosum → Recurrent meningeal.N & Middle meningeal.A
- Foramen Lacerum → ICA, A. of pterygoid canal, N. of pterygoid canal
- Foramen ROTundum (ROTOmax) → Connecting middle cranial fossa and pterygopalatine fossa; Transmits MAXillary Nerve
- Foramen Ovale (Ovum = male) →
  - Mandibular nerve
  - Accesory meningeal artery
  - Lesser petrosal nerve
  - Emissiary veins
- Superior orbital fissure → 3, 4, 6 CN s, ophthalmic division of trigeminal. N
- Jugular foramen → 9, 10, 11 C Ns, internal jugular vein

Named Lines

- Arlt's line → Trachoma
- Beaus line → Lines on nails in patients with depression due to malnutrition
- Blaschko's line → Incontinentia pigmentii
- Burtonian line → Lead line = Lead poisoning
- Cantlie line → Segments of liver
- Ferrys line → Filtering bleb on cornea
- Hudson line → Opacity on cornea in old age
- Kerley lines → Congestive Cardiac Failure
- Langer lines → Cleavage lines Dermal lines
- Lines of Sibileau → Used in Lederman classification in cancer of paranasal sinuses
- Lines of Zahn → In lung
- Mees lines → Arsenic poisoning
- NelATon line → Between ASIS & Ischial Tuberosity in a flexed hip
- Schwalbes line → Uveal tract
- SheNton line → Imaginary line along Superior pubic ramus and Neck of femur
- Stephens line → Pubo coccygeal line
- Stockers lines → Pterygium
- Terrys lines → Nails of hepatic failure

Named Tumors

- Brenner tumor → Ovarian fibroma
- Brown tumor → Hyper para thyroidism
- Cocks peculiar tumor → Infected sebaccous cyst over scalp
- Codman tumor → Chondroblastoma

Codman's A → Osteosarcoma.

- Godwins tumor → Lympho epithelioma of parotid
- Grawitz tumor → Renal cell carcinoma
- Ringertz tumor → Schneider papilloma inverted papilloma of lateral wall of nose
- Klatskin tumor → Cholangiocarcinoma at hilum of C.H.D
- Pindborg tumor → Odontoblastoma
- Pott's puffy tumor → Osteomyelitis of frontal bone
- Rodent tumor → Basal cell carcinoma
- Warthins tumor → Adeno lymphoma of parotid

Named Ulcers

- Buruli ulcer → M. ulcerans
- Hunners ulcer → Urinary bladder
- Kissing ulcer → Benign ulcer in urinary bladder
- Maleneys ulcer → Micro aerophilic streptococci
- Marjolins → Squamous Cell Carcinoma in chronic ulcer
- Rodent ulcer → Basal Cell Carcinoma

Named Rings

- Fleischer ring → Keratoconus
- Immune ring of Wessley → Fungal keratitis
- Kayser Fleischer ring → Wilsons disease
- Landolts ring → To check visual acuity in infants
- Voissious ring → Traumatic (faint opacity of anterior lens

Named Indices

- Bacteriological index → Hansen's (leprosy)
- Body mass Index → Quetelets rule
- Breteau index → Number of positive containers for Aedes per 100 houses is represented as Breteau index
- Chandlers index → Hookworm
- International Prognostic Indes (IPI) → Non Hodgkin Lymphoma
- Meintzer index → Differentiate IDA from betathalassemia
- Morphological index → Hansen's
- Pearl index → No. of pregnancies/no. of months of exposure *1200
- Reid index → Chronic Bronchitis
- Sullivan index → Disability rate

Named Bodies

- Aschoff bodies → Rheumatic fever
- Asteroid bodies → Sporotrichosis
- Asteroid bodies → Sarcoidosis
- Bamboo bodies → Asbestosis
- Body of arantius → Aortic valve nodules
- Body of Highmore → Mediastinum testis
- Bolbiani bodies → Yolk nucleus
- Citron body → Clostridium septicum
- Civatte bodies → Lichen Planus
- Coccoid bodies → Psitaccosis

- Councilman bodies → Hepatitis/Yellow fever
- Creola bodies → Asthma
- Cystoids bodies → degenerated retinal nerve fibres
- Donner bodies → Colostrum corpuscles
- Donovan bodies → Granuloma inguinale
- Dutcher bodies → Multiple myeloma
- Ferruginous bodies → Asbestosis
- Heinz bodies → G6PD deficiency
- Herring bodies → Neurohypophysis
- Hirano bodies → Alzheimers
- Lewy Body → Lewy Body Dementia/Parkinsons
- Masson bodies → Pneumonia in rheumatic patients
- Michaelis Guttmann → Malakoplakia
- Mooser bodies → Endemic typhus
- Negri bodies → Rabies
- Nemaline bodies → Myopathy (juvenile)
- Pacchonian → Arachnoid granulations
- Pappenheimer → Sideroblastic anemia, hemolytic anemia, sickle cell disease
- Pick bodies → Picks disease
- Psammoma bodies → Psammoma (Papillary Ca thyroid, serous cystadenoma ovary) (Refer Mnemonics)

- Riley bodies → Hurler syndrome
- Rushton bodies → Odontogenic bodies
- Russel bodies → K.rhinoscleromatis/Multiple myeloma
- Sandstorm bodies → parathyroid glands
- Scheurmann bodies → Sarcoidosis
- Weibel Palade bodies → 'P' selectin in endothelial Cells
- Zimmerman bodies → Hemangiopericytoma

Named Bacteria

- Bordetella pertussis → Bordet Gengou bacillus
- C. diphtheriae → Kleb Loeffler Bacillus
- C. pseudo tuberculosis → Preisz Nocard bacillus
- Clostridium tetani → Nicolaires bacillus
- Corynbacterium pseudodiphtherium → Hoffman bacillus
- H. aegypticus → Kochs weeks bacillus
- H. influenzae → Peiffer bacillus
- Klebsiella rhinoscleromatis → Frisch bacillus
- Klebsiella ozaenae → Abels bacillus
- Klebsiella pneumoniae → Fried Landers bacillus
- M. intracellulare → Batteys bacillus
- M. paratuberculosis → Johnes bacillus
- M. tuberculosis → Kochs bacillus
- Mycoplasma → Eaton agent

Named Bodies in Microbiology

- Bollinger → Fowl pox
- Cowdry(A) → Herpes/Yellow fever
- Cowdry(B) → Adenovirus/Polio
- Guarineri → Vaccinia virus
- Henderson Patterson → Molluscum contagiosum
- HP bodies → Chlamydia trachomatis
- Inclusion bodies in Oligodendrocytes → PMLE [Progressive multifocal leuko Encephalopathy]
- Intra Cytoplasmic Sarcolemmal vacoules → IBM [Inclusion Body Myositis]
- LIP Schultz → Herpes labialis (Lip = Labialis)
- Leventhal Cole Lille → Chlamydia psittaci
- Miyagava corpuscles → LGV
- Neuro Endocrine granules → ParaGangliomas
- Sclerotic bodies
- Medlar bodies

} Chromoblastomycosis

- Torres → Yellow fever
- Warthin Fink lady → Measles

Named Bodies in Gynecology

- Call Exner bodies (call granny cell) → Granulosa cell tumor
- "S"chiller - "D"uval → en"DoD"ermal "S"inus [SD-DS]
- Hob Nail cells → Clear cell tumor [Keep nails clear]
- Re"INK"e cells → Hi Ilus cell tumor → [Hi Rinky]

- Walthard cell rests ⟶ Brenners tumor [Wall Bricks]
- RokiTansky ⟶ TeRatoma [RT-TR]

Named Regimens

- Bisgards regime ⟶ Conservative regimen for variacose ulcer
- INGRAM regimen ⟶ Psoriasis
- McAffee Johnson ⟶ Placenta previa
- NIGRO regimen ⟶ Carcinoma anal canal [5-FU+MMC mitomycin C]
- Ochsner Sherren regimen ⟶ Conservative regimen for acute Appendicular mass
- Pritchard regime ⟶ Eclampsia

Named Ducts & Sphincters

- Canal of Luschke ⟶ Gall bladder
- Cloquet node ⟶ Lymph node of thigh
- Cords of Billroth ⟶ Spleen
- Delphian node ⟶ Prelaryngeal lymph node
- Duct of Wirsung ⟶ Main pancreatic duct
- Ducts of Bellini ⟶ Kidney
- Ducts of Santorini ⟶ Accessory pancreatic duct
- Irish nodes ⟶ Lt anterior axillary nodes
- Lymph node of LUND ⟶ Gall bladder
- Rokitansky Sinuses ⟶ Gall Bladder
- Rotter nodes ⟶ Interpectoral nodes
- Stenson's duct ⟶ Parotid duct
- Virchow node ⟶ Lt supraclavicular node

EPONYMS

- Albinis nodules – Nodules on mitral and tricuspid valves
- Arantius bodies – Nodules on aortic and pulmonary valves
- Balls valves – Anal valves
- Bartholin's glands – Sublingual ducts that open into submandibular glands
- Bartholin's glands – Greater vestibular glands
- Bauhin's glands – Anterior lingual glands
- Bauhin's valve – Ileo ceacal valve
- Bellini's ducts – Collecting tubules of kidneys
- Bertin's columns – Renal columns
- Bertin's ligament – Ileofemoral ligament
- Bowman's capsule – Glomerular capsule
- Bowman's gland – Serous glands of olfactory mucus membrane
- Bowman's membrane – Anterior limiting membrane of cornea
- Buck's fascia – Deep fascia of penis
- Burn's ligament – Falciform ligament of fascia lata
- Burn's space – Space in supra-sternal notch
- Cloquet's canal – Hyaloids canal
- Cloquet's gland – Lymph node in femoral ring
- Cloquet's septum – Femoral septum
- Cloquet's fascia -- Membranous layer of superficial perineal fascia
- Dupuyteren's fascia – Palmar fascia
- Edinger Westphal nucleus – Occulomotor nucleus in midbrain
- Galen vein – Great cerebral vein
- Gasserian ganglion – Trigeminal nerve ganglion

- Gerlach's tonsil – Tubal tonsil
- Gerota's fascia – Renal fascia
- Gimbernaut's ligament – Lacunar ligament
- Glisson's capsule – Liver capsule
- Hasner valve – Lacrimal fold
- Heister's valve – Spiral folds of cystic duct
- Hesselbach's fascia – Cribriform facia
- Hesselbach's ligament – Thickening of transversalis fascia
- Glisson's capsule is liver capsule
- Heubner's artery is recurrent branch of anterior cerebral artery
- Antrum of highmore is maxillary sinus
- Body of high more is mediastinal testis
- Hilton's line is the white line in anal canal
- Houston's valve is the middle of the three rectal folds
- Hunter's canal is adductor canal
- Jackson's membrane is a peritoneal fold between ceacum and right abdominal wall
- Jacobson's nerve is tympanic branch of good so pharyngeal
- Jacobson's organ is vomeronasal organ
- Koch's node is SA node
- Kent's bundle is a trip ventricular bundle
- Krause glands are accessory lacrimal glands near superior fornix
- Langer's lines are cleavage lines of skin
- Lieutaud's trigone is the trigone of urinary bladder
- Lisfranc's joint is tarsomatatarsal joint
- Lisfranc's ligament is interosseus ligament between second metatarsal and medial cunieform bone

- Lisfranc's tubercle is dorsal tubercle of radius
- Litter's glands are urethral glands
- Ligament of Lockwood is the sling of the eyeball
- Louis angle is sternal angle
- Macewen's triangle is suprameatal triangle
- Mackenrodt's ligament lateral cervical or cardinal ligament of uterus
- Malphigian capsule is splenic capsule
- Malphigian corpuscles are splenic corpuscles
- Malphigian layer is the germinative zone of epidermis
- Meckel's cave is cavum trigeminale
- Meckel's ganglion is pterygopalatine ganglion
- Meckel's diverticulum is persistent vitello intestinal duct
- Meissner's corpuscles are specialized sensory nerve endings of skin
- Meissner's plexus is submucous plexus
- Merkel's corpuscles are sensory nerve endings in skin
- Montgomery tubercles are enlarged sebaceous glands of areola of nipple
- Morgagni columns are anal columns
- Morgagni foramen is foramen of foramen ceacum
- Hydatid of Morgagni is appendix of testis
- Sinus of Morgagni is interval between superior constrictor and the base of the skull
- Muller's fibers are radial fibres in the retina
- Muller's muscle is tarsal or palpebral muscle
- Nelaton's line is a projected line extending from anterior superior iliac spine to the tubercle of ischium

- Nissil granules are cytoplasmic chromoidal substance of neurons
- Nuck canal is patent process US vaginalis in female
- Nuhn gland is anterior lingual gland
- Pawlik's triangle is an area on the anterior wall of vagina in contact with the base of the bladder
- Petit's ligaments are uterosacral ligaments
- Petit's triangle is triangle of lumbar hernia between crest of the ileum and margins of external oblique and latissimus dorsi
- Peter's nodules are solitary lymphatic follicles
- Peter's patches are aggregated lymphatic follicles in the ileum
- Poupart's ligament is inguinal ligament
- Prussak's space is part of the epitympanic recess between the flaccid part of the tympanic membrane and the neck of the malleus
- Reisseisen's muscle is the smooth muscle fibers of the smallest bronchi
- Reissner membrane is vestibular membrane
- Retzius space is prevesical space
- Retzius veins are retroperitoneal veins
- Riolans anastamosis is the intermesenteric arterial communication between superior and inferior mesenteric arteries
- Rivinus ducts are smaller ducts of sublingual gland
- Rivinus notch is a gap in the tympanic ring
- Santorini cartilage is corniculate cartilage of larynx
- Santorini duct is accessory pancreatic duct
- Sappey's plexus is plexus of lymphatics in areola of breast
- Sappey's veins is venous plexus in the falciform ligament of liver

- Scarpas canals are lesser incisive canals
- Scarpas fascia is membranous layer of subcutaneous layer of abdomen
- Scarpas ganglion is vestibular ganglion
- Scarpas nerve is nasopalatine nerve
- Scarpas triangle is femoral triangle
- Shrapnell's membrane is flaccid part of tympanic membrane
- Sibson's fascia is supra pleural membrane
- Sibson's muscle is scalenus minimus
- Skene's glands are para urethral glands in female
- Stensen's duct is parotid duct
- Stensen's canal are greater incisive canals
- Toldts fascia is fixation of fascial planes behind the body of the pancreas
- Treitz fascia is fascia behind thee head of the pancreas
- Traubes space is the semilunar area on the chest wall over which the stomach is tympanitic on percussion
- Treitz ligament is suspensory ligament of duodenum
- Treves bloodless fold is ileoceacal fold
- Virchow Robin spaces are perivascular spaces in brain and spinal cord
- Waldeyer's ring is lymphatic ring of pharynx
- Waldeyer's organ is paradidymis
- Wharton's duct is submandibular duct
- Wilkie's artery is supraduodenal artrery
- Willis circle is arterial circle of brain
- Winslow foramen is epiploi foramen
- Wirsung duct is pancreatic duct

- Wolfring glands are accessory lacrimal glands
- Zeis glands are sebaceous ciliary glands
- Annulus of Zinn is common tendinous ring of orbit
- Zonule of Zinn is a ciliary zonule
- Organ of Zuckerkandl are paired para-aortic bodies near the origin of the inferior mesenteric artery.

CHAPTER 2

MOST COMMON (MC) CANCERS

MOST COMMON CANCERS

Child – MC = Leukemia ⟶ Medulloblastoma

Infant – MC = Hemangioma

MC ⟶ testicular tumor ⟶ Yolk sac (infant)
Seminoma (child)
Lymphoma (old)

MC ⟶ tonsil ⟶ Mucoepidermoid Carcinoma (adult)
Lymphoma – (child)

MC ⟶ India ⟶ Oral cavity cancer, Breast

MC ⟶ India ⟶ death ⟶ Liver Cancer
Ca. Cervix

Incidence

1. World ⟶ ♂ - Lung
♀ - Breast

2. India ⟶ ♂ - Oral Cancer
♀ - Breast

3. MC occupational cancer ⇒ skin cancer

Deaths

World ⟶ ♂ - Lung
♀ - Breast

India ⟶ ♂ - Liver
♀ - Ca. Cervix

Metastases

- MC site for secondaries ⟶ LN (Lymph Nodes)
- 2nd MC site for secondaries ⟶ Liver
- MC source for liver secondaries ⟶ colorectal
- Source of Bone secondaries ⟶ Prostate (male), Breast (female), Neuroblastoma (child)
- Distal bones ⟶ Bronchus, Bowel, Bladder
- Male ⟶ Lytic – Lung; Blastic ⟶ Prostate
- Female ⟶ Lytic and blastic ⟶ Breast

Breast

MC - Disorder ⟶ Fibroadenosis
Tumour ⟶ Fibroadenoma
Cancer ⟶ Ductal/Schirrous
Discharge ⟶ Ectasia

Brain

1. MC tumour ⟶ 2° of Brain (MC source – SCC of Lung)
2. MC 1°tumour ⟶ Adults ⟶ Glioblastoma (= AVM); Child ⟶ Medulloblastoma
3. 2nd MC 1° ⟶ Meningioma
4. MC tumour c̄
   - Calcification ⟶ Craniopharyngioma
   - Worst prognosis ⟶ Glioblastoma

- Best prognosis → **Oligodendroglioma**
- DROP metastasis → **Ependymoma**
- Immunocompromised → Primary CNS Lymphoma
- Astro/Post fossa → **Juvenile Pilocytic Astrocytoma (JPA)**
- Radiosensitive tumor → **Medulloblastoma**
- NF-1 → **Optic glioma**
- NF-2 → **B/L Acoustic Schwanomna**
- VHL → **Cerebellar Hemangioblastoma**

Spinal Cord

- MC Benign → **Meningiomas/Neurofibromas**
- 1° intramedullary → **Ependymoma**
- Extramedullary → **Neurofibroma**
- Extradural MC → **2° (Secondaries)**

GIT

- Gastric Adenoma → **Antrum**
- Site of Inflammatory polyp → **Stomach**
- Gastric carcinoma → **Incissura angularis (LC)**
- Site of extra nodal Lymphoma (GIST) → **Stomach**
- Site of Gastrinoma → **Head of pancreas (Passaro)**
- Site of ZES Gastrinoma in MEN → **Duodenum**
- Esophagus → **Benign – Leiomyoma**; **Malignant–SCC(Mid1/3),AC(lower1/3)**
- **Malignant** → **Adeno Carcinoma (Incisura angularis)**
  Stomach → **Benign** → Leiomyoma

- SI → Benign → Adenoma (ampulla)
  Malignant → Adeno Ca (ampulla)
- LI → Adeno Ca → Sigmoid colon

Eye

- Mc intraocular tumor
  - Adult → Choroid melanoma
  - Child → Retinoblastoma
- Mc Extraocular tumor → Rhabdomyosarcoma
- Malignant Lid tumor → Basal Cell Carcinoma (lower medial Canthus)
- Benign Lid tumor → Papilloma
- Child – Inherited tumor → Retinoblastoma

Tongue

Mc site → Lateral border of tongue

Para Nasal Sinus

- Benign
  - Mc – Osteoma
  - Site – Frontal sinus
- Malignant
  - Mc – Squamous Cell Carcinoma
  - Site – Maxillary Sinus

Pleura

Mc → Mesothelioma

Lung

Mc tumor of post. Mediastinum → Neurofibroma

Oesophagus

Benign → Leiomyoma (fibroid)
Malignant → SCC (mid 1/3), AC (lower 1/3)

Stomach

Benign → Adenomatous polyp
Malignant → Adenocarcinoma [Incisora Angularis]

Gall Bladder

Adenocarcinoma / Pharygian Cap [(Mc congenital) anomaly]

Pancreas

Adenocarcinoma (head)

Small Intestine

Adenocarcinoma

Skin

Basal Cell Carcinoma (BCC)

Thyroid

Papillary carcinoma of thyroid

Bone

MC tumor → Secondaries → Osteoblastic: Breast, Prostate; Osteolytic: Lung

Most Common

1° tumor c multicentric	→ Ewing's
Flat bones	→ Chondrosarcoma

MISCELLANEOUS

Undescended testes	→ Seminoma (**PLAP +**)
Post menopausal ovary	→ Thecoma
Site of urethral cancer	→ Squamous cell Carcinoma of Bulbo Membranous
Newborn	→ Sacro-coccygeal teratoma
Lymphoma of spleen	→ NHL

Ovary	Pitutary	Adrenal
Benign → Dermoid cyst	Prolactinoma	Adult-Pheochromocytoma
Malignant → Dysgerminoma	GH tumor	Child-Neuroblastoma

Soft Tissue Sarcoma (STS)

- MC in extremity → **MFH** (Malignant Fibrous Histicytoma)
- MC in Trunk → Retroperitoneal **Liposarcoma**
- Mc site for dermato fibrosarcoma → **Trunk**
- Site for **ChondroSarcoma** → **Scapula/Sternum/Ribs (Chest)**
- Site for Enchondroma → **Fingers** (digits) [E = F]
- Angiomyolipoma → **TS** [Tuberous sclerosis]
- Liposarcoma → **MC** → **Round cell type** (dangerous → **Pleomorphic**)
- RMS: MC **Adult** rhabdo myo sarcoma → **Pleomorphic** → Poor (Prognosis)
- MC extra orbital tumor in children → **Embryonal variant of RMS**

ORAL CAVITY

- MC = oropharyngeal Ca → **Buccal** (India), **Lip** (World/Solar)
- MC site of cancer lip → **Vermillion** (LL)
- Tongue → **Lateral border**
- Check → **Angle**
- Larynx → **Glottis**
- Nasopharynx → **Fossa of Rosen Muller**
- Ranula → **Floor of mouth**
- Epulis → **Root of teeth**

- Dentigerous cyst → Crown of unerupted (M3) (third molar)
- Dental (Radicular) Cyst → Pulp (mandible)
- MC type overall → SCC (In upper lip = BCC)
- MC precancerous → Leukoplakia
- Most Risky is → Redplakia (erythroplakia)
- Ranula is a → sublingual (mucoid retention cyst)
- MC L.N → Submandibular
- Best prognosis → Lip cancer

ENT

- All ENT malignancies are **squamous**

Except Parotid → Mucoepidermoid carcinoma

Tonsil → Child – lymphoma
Tonsil → Adult – mucoepidermoid Carcinoma

Mc Benign tumor → Papilloma (Vestibule)

Site of Capillary → Little's area

Heamangioma

Cavernous Haemangioma → Inferior Turbinate

Malignant melanoma → Septum

Tumor of nasal cavity → Lateral wall
Tumor of nasal cavity → Squamous

Salivary (Female)

MC → Major glands → 90% Benign → Pleomorphic
MC → Cancer → Muco epidermoid carcinoma (MEC)

MC → Minor → Malignant(90%) → ACC (Adenoid cystic carcinoma cylindroma) → Hard palate

MC site → Parotid (superficial lobe) for muco epidermoid carcinoma

For ACC → Minor salivary glands

For SCC → Sub mandibular

Child
- Benign → Pleomorphic (pre malignant)
- Malignant → Muco epidermoid Ca/ Acinic cell

ACC → Perineural invasion

MEC
- MC malignant parotid (children)
- MC radiation induced

SUMMARY

Pleomorphic adenoma	→ Parotid
	→ Submandibular also
Warthin	→ Parotid only
ACC	→ Minor only
MEC	→ Parotid
Acinic	→ Parotid only
SCC	→ Submandibular

MC Cancers

- MC type of odontogenic tumor : Ameloblastoma.
- MC type of benign mandibular tumor : Ameloblastoma
- MC type of lymphoma involving the head and neck region : Diffuse large B-cell lymphoma
- MC tumor of the Minor Salivary glands : Adenoid Cystic Carcinoma
- MC vascular tumor of orbit in children : Capillary Hemangioma.

- MC intraocular malignant neoplasm in childhood : Retinoblastoma
- MC orbital malignant neoplasm of childhood : Rhabdomyosarcoma.
- MC intraorbital tumors found in adults : Melanoma
- MC type of of Pituitary adenomas : Prolactinoma
- MC benign tumor of the larynx : Squamous papilloma
- MC type of Sarcoma of the larynx : Chondrosarcoma.
- MC breast tumor under age 25 years : Fibroadenoma
- MC cardiac tumor in children : Rhabdomyoma.
- MC cardiac valvular tumor : Papillary fibroelastoma
- MC malignant tumor of the Heart : Angiosarcoma
- MC malignant tumor affecting ribs of children + adolescents: Osteosarcoma
- MC malignant neoplasm of diaphragm : Rhabdomyosarcoma
- MC benign tumor of the lung : Hamartoma
- MC Ca to arise from a thyroglossal duct cyst : Papillary carcinoma
- MC GI neoplasm : Adenoma
- MC GI tract location for primary extranodal lymphoma : Stomach, usually NHL type.
- MC benign tumor of the small bowel : GIST
- MC benign vascular gastric tumor : Glomus tumor of stomach.
- MC type of Sarcoma of the liver : Angiosarcoma
- MC malignant tumor of the Duodenum : Adenocarcinoma.
- MC malignant tumor of the Small bowel : Adenocarcinoma
- MC benign tumor of spleen : Hemangioma
- MC malignant neoplasm of the spleen : Lymphoma.

- MC glial spinal cord tumor in adults : Ependymoma
- MC glial tumor with microcalcifications : Oligodendroglioma
- MC gynecologic neoplasm : Uterine Leiomyoma
- MC malignant abdominal neoplasm in children 1–8 years old: Wilms Tumor.
- MC type of malignancy in undescended testis : Seminoma
- MC malignant Testicular neoplasm : Non-seminomatous germ cell tumors
- MC bilateral testicular tumor : Lymphoma
- MC germ cell tumor associated with excessive hCG production: Choriocarcinoma.
- MC malignant cause of bilateral global renal enlargement : Lymphoma.
- MC malignant ovarian neoplasm : Serous adenocarcinoma.
- MC malignant primary bone tumor in young adults and children : Osteosarcoma
- MC malignant sex cord–stromal tumor : Granulosa cell tumor
- MC intramedullary spinal neoplasm in adults : Ependymoma of Spinal Cord
- MC intramedullary tumor in children : Astrocytoma
- MC intravascular venous tumor : Leiomyosarcoma of IVC
- MC in-utero renal tumor : Mesoblastic nephroma.
- MC bladder neoplasm in children younger than 10 years : Rhabdomyosarcoma
- MC primary malignant orbital tumor in childhood : Rhabdomyosarcoma
- MC type of liposarcoma to affect children : Myxoid liposarcoma

CHAPTER 3

ONCOLOGY EMERGENCIES

General

CT = Chemotherapy
Dx = Diagnosis
IOC = Inv Of Choice
RT = Radiotherapy
Rx = Treatment

1. **Superior vena caval syndrome**
   - Most common cause → 1. Lung – in adult/elderly – Rx is RT
     2. Lymphoma – young – Rx is CT
   - X-ray finding → Rt. superior widening
   - Confirmation is by CT scan
2. **Pericardial effusion** → ECHO is mc used
   → Cytology is Hemorrhagic
   Rx → Centesis or sclerotherapy-Bleomycin/Mitomycin
3. **SAIO** → MCC– Melanoma/ovary/PNS/vincristine
4. **Urinary Obstruction: MCC** → Ca. Prostrate/Cervix → Bladder outlet obstruction/ureter → **Flankpain**
2.
5. **Biliary Obstruction** → MC → Ca Pancreas
   → Stomach(Second MC)
6. **Malignant Spinal Cord Compression (MSCC):**
   – MC cause → Lung – thoracic Vertebrae (Anterior/Antero Lateral)
   → Breast/Prostrate → Multiple sites
   → Melanoma → Edema

- MC S/S → 1. Back pain (localized)
  → 2. Lhermitte sign
- Confirmation by → Absent anal/Bulbocavernosal reflex
- Cauda equina → Saddle anesthesia
- Winking Owl sign → Erosion of pedicles (earliest)
- Collapse → 1° cause → Osteoporosis
  → 2° cause → Tumor
- Severity, prognosis → Histology
- IOC → T_2MRI
- Rx → Dexa methasone – i.v (high)/ RT

↑ **ICT**–MCC → Lung > Breast > Melanoma
IOC → CECT

↑ **IC Bleed**–MCC → Melanoma > GCT > RCC
→ Gold → Gd-MRI Standard

Rx: Of multiple = Whole brain RT
Single = Surgery
Reccurent = Stereotactic radiosurgery

Neoplastic Meningitis

MCC → Melanoma, Breast/Lung/AIDS
IOC → cytology (False –ve 40%)
→ ↑ CSF Proteins in all except HTLV-1
Gold standard → MRI → intradural enhancing nodules
Rx → Extended Release Cytarabine (Depocyte)

Seizures

MCC in Cancer → Secondaries Frontal lobe tumors = early seizures
MCC in Cancer → Melanoma = Late seizures

Most frequent → (1°)

MC implicated Drugs: Busulfan
Chlorambucil
Etoposide
} Rx-Phenytoin

Hyper Leukocytosis

MCC → ALL

Mc organ → Brain → **Rx:** RT of 600 c Gray (Whole brain)

→ Lung → **Pulse oximetry-** Leukemic cell lysis pneumopathy

Leukostasis

Same as hyperleukocytosis

MCC → **ALL**

MC organ → Brain → **Rx:** RT of 600 c Gray (Whole brain)

→ Lung → **Pulse oximetry-** → **Leukemic cell lysis** pneumopathy

MC → **APL** (AML) and Rx is Tretinoin/AS_2O_3

Hemoptysis

MC cause → **Lung cancer**

Massive: > 600 ml/24 hrs

IOC → **Bronchoscopy**

ROC → **Surgery + Bronchial Artery embolisation on Nd-YAG Laser**

Pulmonary hemorrhage

MCC ⟶ Aspergillius ⟶ Cavity on CXR ⟶ Rx is Surgery

Airway obstruction

MCC ⟶ Lung/ > Lymphoma (LN)

ROC ⟶ EBRT + GC [External beam radiotherapy and glucocorticoids]

METABOLIC

MC ⟶ Metabolic PNS syndrome ⟶ Cushing's

⟶ Metabolic PNS manifestation ⟶ Hypercalcemia

⟶ Cause of Hyponatremia ⟶ SIADH

⟶ Lactic acidosis ⟶ Liver tumor

⟶ Persistent hypoglycemia ⟶ Pancreatic ICT (MCC)/ HCC/Adrenal tumor secreting IGF-II

⟶ Pseudo hypo Glycemia ⟶ Hyperleukocytosis

⟶ MyeloProliferative Disorders/Leukemoid

Rx ⟶ GM-CSF

⟶ Adrenal Insufficiency – **MCC** ⟶ **Metastases**

MC drugs ⟶ Mitotane/Ketoconazole

⟶ Amino glutethimide

⟶ Megesterol acetate

**Tumor Lysis Syndrome: (1-5 days)

Hyper uricemia ⟶ ARF ⟶ Uric Acid nephropathy

Hyperphosphatemia ⟶ ARF due to calcium phosphate causing hypocalcemia

*Hypocalcemia ⟶ Due to Ca_3PO_4

Hyperkalemia ⟶ VF/VT/SCD (Sudden Cardiac Death)

Pseudo hyperkalemia ⟶ while sample drawing ⟶ lysis of cells

⟶ No ECG changes

Rx

1. Hydration → ARF (3000 ml/m²/day of NS)
2. Acidosis → $NaHCO_3$
3. ↑ UA (Uric Acid) → Allopurinol oral/iv (or)
   - → Rasburicase → Primate derived so s/e is → hypersensitivty
   - → C/I: G-6PD deficiency
   - → Urate oxidase
   - → Hemodialysis if
     - → Potassium > 6
     - → UA > 10
     - → Creat > 10
     - → PO_4 > 10
     - → Hypocalcemia → Symptomatic

Monoclonal Antibody Reactions

→ Due to TNF-α/ IL-6

Hemolytic Uremic Syndrome/TTP

MCC → Mitomycin → others → Bleomycin/Cisplatin/Gemcitabine

MC time → 4 - 8 weeks

MC s/s → MAHA + TCP → ARF [TCP = Thrombocytopenia]

→ CCF/effusion

→ Hypertension

MC cause of HUS + Raynauds → Bleomycin

MC investigation → Coombs negative

→ TCP (<IL) with no bleeding abnormalities

MC pathology → Fibrin depot in arteriole/ Capillaryof Kidney

Over all MCC → Δ ADAM Ts 13 → VWF ↑

RxOC → Immuno perfusion over Staph A column

→ Rx: Anemia + TCP + /ARF also

***MC serious complication of any treatment is neutropenia/infection**

Pulmonary infiltrates

MC S/S → Interstitial pneumonitis/Lung Fibrosis

MC **D**rugs → **M**ethotrexate/Procarbazine (Hypersensitivity)

MC drug causing noncardiopulmonary edema → **C**ytosine

MCC of ILD → Geftinib > Imatinib/Erolotinib

MC time of radiation pneumonitis → 2–6 months

MCC of Radiation fibrosis → PDGF-β/TNF/TGF-β

MC medical complication → **P**neumonia → **PCP** → Rx- cotrimoxazole

RxOC (Ceftazidime/Imipenem) → Broad spectrum antibiotics then antifungal + cotrimoxazole

IOC for non remitting lesions → Open lung biopsy

Neutropenic enterocolitis

(Aka typhlitis)

MC cause → Rx of **AML**

MC site → **C**aecum

MC drug → **T**axanes

MC S/S → Rt. Hypochondrium pain + GIT + neutropenia

MC IOC → CT scan

MC finding → Ceacal wall thickening > 10 mm

MC D/d → Clostridium difficle infection

Specific finding → **P**neumatosis intestinalis
SI + LI involvement

Hemorrhagic cystitis

MC drug → Cyclophosphamide(acrolein)
Rx (CPS)

1. Hydration and MESNA
2. 0.37% formalin
3. N-acetylcysteine
4. Carboprost

Bone marrow transplantation → MCC of early failure → CPS (Cyclophosphamide)

→ MCC of late failure → Viral – Polyoma BKV – Adenovirus 11

Hypersensitivity Reaction (HSR)

Acute → Taxanes → **M**ost responding to anti-histaminics/steroids

Prolonged → **P**latinum compounds

Para neoplastic syndromes

Cushings → **S**mall Cell Lung Ca (SCLC), Pancreas

SIADH → **S**CLC / sq. cell / ICSOL

Hyper Ca^{+2} → **S**q. cell / Breast / renal - cell carcinoma

Hypo glycemia → **F**ibrosarcoma / HCC / Meschchymal stromal tumors

Carcinoid → **B**ronchial / Pancreas / Gastric

Polycythemia → **R**CC/HCC/Cerebellar hemangioblastoma

Gonadotrophin → **S**mall cell cancer of lung

Myasthenia Gravis → **B**ronchogenic Ca

LEMS
Cerebellar
Sensory + Peripheral
Dermatomyositis
→ Small cell Lung Ca

Stiffman Syndrome → Breast / ovary / GIT cancer
Cerebellar → HD/ Breast/ Ovary / Small CL / NB
Limbic → SCLC / NB
Brain stem → Testicular tumors
Opsomyoclonus → NB / Breast
Retinal → SCLC
Acanthosis → AC of GIT / Bronchogenic
Dermatomyositis → Bronchogenic / Breast
Sweet syndorme → Lymphoma/ Pancreas
HOOA (Hypertrophic) → SCLC
DVT (Trosseau) → Pancreatic / SCLC
NBTE → Advanced cancers
Anaemia → Thymoma
Stauffer syndrome → RCC (LFT) elevated in absence of symptoms
Systemic fibrinolysis → Prostrate Ca

HD = Hodgkin Disease

CHAPTER 4

MOST COMMON INFECTIONS

MC in INFECTIONS

- Sepsis in World – GBS > E. coli
- Sepsis in India – Klebsiella > GBS > E. coli

MENINGITIS

Bacterial:

- In neonate – E. coli > Listeria
- In >1 month – Heamophilus influenza B > Neisseria
- In >3 months – Neisseria > Pneumococcus
- Nosocomial – Pseudomonas
- Epidemics – Neisseria only
- Immunocompromised – Listeria

Viral Meningitis:

- Meningitis – Enterovirus\HSV 2
- Epidemics – Arbovirus
- Recurrent meningitis – HSV (Mollaret's meningitis)
- Encephalitis
- ---Sporadic ⟶ HSV -1
- ---Epidemics ⟶ Arbovirus
- --- Immunocompromised ⟶ HIV(PMLE) JC virus/ (fungal- Cryptococcal)

- Temporal lobe ⟶ HSV
- Brain abscess – tuberculoma
- Secondary CNS infections in AIDS – Toxoplasmosis
- Post operative meningitis ⟶ Staph. epidermidis
- CNS parasite in India – Cysticercosis

Endocarditis

- Acute – Staph. aureus
- Sub acute – Strep. viridans
- Early infections in prosthetic valves – Staph. epidermidis
- Late infections in prosthetic valves -- Strep.viridans
- In I.V drug abusers – Rt sided – Staph. epidermidis
- Left sided – enterococcus
- Bacteremia – E. coli

Pneumonia

- Neonate – GBS
- 1 month to 3 months – Listeria
- 1 day to 6 months – Respiratory syncitial virus (RSV)/ Chlamydia pneumoniae
- 6 months to 5 yrs ⟶ Heamophilus influenzae
- 5 yrs to 60 yrs ⟶ Streptococcus pneumoniae > Mycoplasma > Chlamydiae
- Elderly – Listeria
- MC – Pneumococcus
- Atypical – Mycoplasma
- Community acquired pneumonia – Pneumococcus
- Hospital acquired pneumonia – Staphylococcus
- Neutropenia – staph

- Prolonged neutropenia – Aspergillus in COPD – Adenovirus
- In CHF CRF – Streptococcus
- CRF on Hemodialysis – Staph
- Acute bronchiolitis – RSV
- Nosocomial pneumoniae – Staph >> Klebsiella
- In HIV: CD4 count

  >500 ⟶ Streptococcus

  <500 ⟶ Myco.tuberculosis

  <200 ⟶ Pneumocystosis jirovecii pneumoniae

  <100 ⟶ Psudomonas

  <50 ⟶ MAC
- MC in cystic fibrosis – Staph. aureus
- MC cause of recurrent pneumonia in cystic fibrosis – pseudomonas
- MC causing death in cystic fibrosis -- Burkholderia

Diarrhea

- MC virus – rota virus
- E'T'EC – 'T'ravellers diarrhea
- E'P'EC – 'P'aediatric diarrhea
- E'H'EC – 'H'US (hemolytic uremic syndrome
- Persistent diarrhea – Enteroaggregated E. coli
- In chronic granulomatous disease – Guardia lambia
- Virus in celiac sprue – Adenovirus-12
- Helminthic infection in AIDS – Cryptosporidia, Microsporidia, Isospora, Strongyloides stercoralis

Ophthalmology

- Neonatal conjunctivitis – Chlamydiae
- Angular conjunctivitis – Moraxella
- Conjunctivits in lens users – Psudomonas/Acanthamoeba
- Acute dacrocystitis – Streptococcus pneumoniae
- Preseptal cellulitis – Staph. aureus
- Acute canaliculitis – Herpes simplex virus
- Chronic canaliculitis – Actinomycosis
- Anterior segment in AIDS – HSV
- Retinitis – CMV
- Serpenginious ulcer
- Moorens ulcer

Miscellaneous

- MC cause of cause of infectious esophagitis: Candida Esophagitis
- MC cause of cavitary (necrotic) pneumonia in a child: Strep. pneum.
- MC cause of bronchopneumonia : Staphylococcal
- Nosocomial -- Foley(UTI) -- E. coli
- Central venous catheter -- Staph. epidermidis
- Iv catheter related infections -- Coagulase negative staphylococci
- Cholangitis -- E. coli
- Necrotizing enterocolitis -- Clostridium difficle
- Perinephric abscess -- Staph. aureus
- UTI -- E. coli
- PID (worldwide) -- Neisseria gonorrhoea
- PID (India) -- M. tuberculosis

- Recurrent genital ulcers in males -- Herpes genitalis
- HPV associated with Ca. cervix(MC=SCC) -- HPV 16
- HPV causing Adenocarcinoma -- HPV 18
- STD in sexually active female -- Staph. saprophyticus
- In women with IUCD -- Actinomyces
- In post renal transplant -- CMV
- Prostatitis -- E. coli
- Abacterial prostatitis -- C. trachomatis
- Struvite stones -- Proteus
- Virus causing hemorrhagic cystitis -- Adeno virus strain 12
- Malakoplakia -- E. coli
- Lymphangitis -- Streptococcus
- Pyrexia of unknown origin -- M. tuberculosis
- Reactive arthritis -- Chlamydiae
- ASOM -- Strep. pneumoniae
- Human bite infections -- anaerobic streptococci
- Gas gangrene -- Clostridium perfringens
- Fungal infection in febrile neutropenia -- Candida
- Tinea capitis -- Trichophyton tonsurans
- MC intrauterine CNS infection: CMV

INFECTIONS

- Most common agent of native valve infective endocarditis - Staph aureus
- Most common agent of infective endocarditis in intravenous drug abusers - Staph aureus
- Most common agent of prosthetic valve infective endocarditis- Staph epidermidis

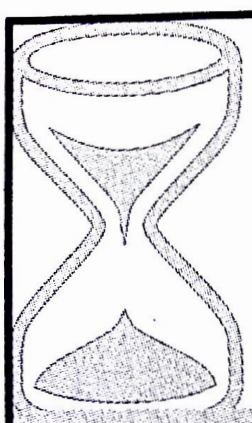
- MC disease due to pox virus infection - Molluscum contagiosum
- MC complication of Cardiac catheterization -Vascular access-site bleeding.
- MC urinary calculi in children - Cystine stones .
- Most common manifestation of Acute Toxoplasmosis - Cervical Lymphaedenopathy.
- Most common cause of HIV disease throughout the world - HIV-1.
- Maternal transmission to the fetus(HIV) occurs most commonly - perinatal period.
- (23–30% Before birth, 50–65% during birth, and 12–20% via breast-feeding).
- Most common opportunistic infection in HIV-infected - Mycobacterium tuberculosis.
- Most commonly used cofirmatory test for HIV - Western blot.
- Most common pulmonary manifestatation in HIV - Pneumonia.
- Most common cause of pneumonia in HIV - Pneumocystis pneumonia.
- Most common atypical mycobacterial infection in HIV - M. avium or M. intracellulare - the Mycobacterium avium complex (MAC).
- Most common opportunistic protozoa that infect the GI tract and cause diarrhea in HIV - Cryptosporidia, Microsporidia, and Isospora belli.
- Most common presentation of syphilis in the HIV-infected patient - Condylomata lata.
- Immune Reconstitution Inflammatory Syndrome is most common in HIV patients
- Most common form of suppurative CNS infection - Bacterial Meningitis .
- Most common hematologic abnormality in HIV-infected patients - Anemia

- Most common cause of seizures(new onset) in HIV - Cerebral mass lesions > HIV
- Encephalopathy > Cryptococcal meningitis.
- Most common causes of secondary CNS infections in AIDS - Toxoplasmos
- Maximum risk of transmission of HIV following exposure - Blood transfusion(90%).
- Most common cause of septic shock - Gram Negative Bacilli. (Escherichia coli, Klebsiella, Proteus, Enterobacter, Serratia, Citrobacter, Morganella, Providencia, and Edwardsiella).
- Most common etiological agent of UTI - E. coli.
- Most common acute uti syndrome -Uncomplicated cystitis(dysuria, urinary frequency and Suprapubic pain.
- Most common cause of Actinomycosis -A. israeli
- Most common site of Actinomycosis - Mandible>Craniofacial
- Most common cause of Bacteremia - E. coli
- Most common site of Proteus infection - Urinary tract
- Most common cause of Fungal meningitis - Cryptococcus neoformans.
- Most common form of suppurative CNS infection - Bacterial Meningitis.
- Most common cause of Fungal meningitis - Cryptococcus neoformans.
- Most common complication of fungal meningitis - Hydrocephalus.
- Most common cause of Brain abscess in India - Mycobacterial infection (tuberculoma).
- Most common symptom in patients with a brain abscess - Headache.
- Starting therapy with a CD4+ T cell count under 50/uL who have a precipitous drop in HIV RNA levels following the initiation of CART

- Most common cause of Traveller's diarrhea - ETEC
- Hemolytic Uremic Syndrome- EHEC, Shigella dysentriae type I, Campylobacter jejuni, Streptococcus pneumoniae, HIV
- Persistent Diarrhoea- Enteroaggregated E. coli
- Malakoplakia most commonly caused by - E. coli
- Most common type of Ca cervix - Squamous cell ca
- Most prevalent HPV associated with Ca Cervix - HPV 16
- Most prevalent HPV associated with squamous cell Ca Cervix- HPV 16
- Most prevalent HPV associated with squamous cell Ca cervix – HPV 16
- Most prevalent HPV associated with adenocarcinomaa Cervix- HPV-18
- MC Ca Cervix arises at - Squamocolumnar junction
- MC cause of PID worldwide: N. Gonorrhea
- MC cause of PID in India: TB
- Most common cause of meningitis in infants of
- < 2 months age – Group B strptococci(in USA)
- 2-12 months – N. meningitidis
- > 1 yr – N. meningitidis
- MC cause of neonatal sepsis in India - Klebsiella
- MC cause of meningitis in adults > 20 yrs age - Strept. Pneumonia
- MC cause of acute meningitis in HIV - Cryptococcus neoformans
- MC cause of viral encephalitis - Enterovirus
- MC cause of meningoencephalitis in children – Enterovirus
- MC cause of hypothyroidism in india and worldwide is hashimotos/iodine deficiency ?

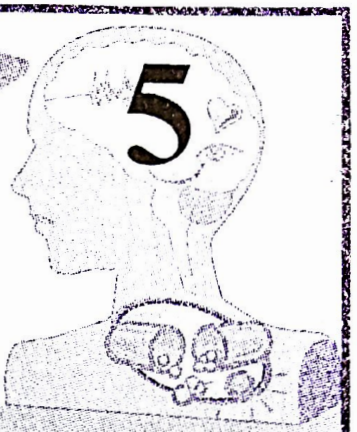
- MC cause of neonatal sepsis in India - klebsiella
- MC cause of neonatal sepsis in western - E. coli
- MC cause of seizure in IDM – Hypoglycemia
- Most potential route for transmission of Meningitis from CNS to inner ear - Cochlear Aqueduct
- Most resistant organisms for antiseptics - Prions > Bacterial spores > Protozoal cysts.
- MC etiological agent for acute Bronchiolitis - Respiratory syncitial virus.
- Vaccine with Maximum efficacy - Measles > Tetanus toxoid (> 95%).
- MC organisms in IV catheter related infections - Coagulase -ve Staphylococci > Staph aureus > Enterococci > Chlamydia > Pseudomonas aeuriginosa.
- Most sensitive diagnostic test for Dengue - Neutralization test.
- MC cause of mononeuritis multiplex in India - Hansen's disease(Leprosy).
- MC organism associated with reactive arthritis - Chlamydia.
- MC cause of plant induced dermatitis in India - Parthenium.
- Infective endocarditis due to pseudomonas is most commonly seen with-IV drug abuse of Pentazocin.
- Single Most common cause of PUO - Mycobacterium tuberculosis.
- MC cause of Nosocomial pneumonia - Gram -ve organisms.
- MC cuase of sporadic viral encephalitis - HSV I
- MC cause of epidemic viral encephalitis- Arbovirus.
- M Ccause of viral meningitis/encephalitis - Enterovirus.
- MC cause of recurrent genital ulcer in males - Herpes genitalis.

- MC cause of Acute otitis media in children - Streptococcus pneumoniae .
- MC fungal infection in febrile neutropenia - Candida.
- MC cause of Tinea capitis - Trichophyton tonsurans
- MC cause of Gas gangrene - Clostridium perfringens.
- MC parasite of CNS in India - Cysticercosis.
- Commonest helminthic infection in AIDS - Strongyloides stercoralis.
- MC agent responsible for Human bite infections - Anaerobic streptococci.



CHAPTER 5

MOST COMMON IN SYSTEMS



MEDICINE

- MC affected cranial nerve in lyme disease - facial nerve
- MC type of total anomalous pulmonary venous connection - supracardiac type 1
- MC type of ASD - ostium secundum
- MC type of VSD - membranous
- MC type of pulmonary amyloidosis - tracheobronchial type
- MC hereditary hypercoagulable condition - Factor V Leiden
- MC type of mucopolysaccharidoses - Morquio (Type IV)
- MC type of intrapulmonary form of Hodgkin's disease - bronchovascular form
- MC cause of pulmonary-renal syndrome - ANCA associated vasculitis
- MC cause of the stripe sign on V/Q scan - pulmonary emphysema
- MC cause of tricuspid stenosis: Rheumatic heart disease
- MC cause of unilateral diaphragmatic paralysis - malignant invasion
- MC cause of unilateral nonperfused lung on V/Q scan - bronchogenic carcinoma
- MC cause of unilateral pulmonary edema - prolonged unilateral dependent positioning
- MC cause of bilateral echogenic renal cortex - chronic glomerulonephritis

- MC brain anomaly on prenatal sonograms - isolated mild ventriculomegaly
- MC cardiac manifestation of SLE - pericarditis
- MC cause for late failure in lung transplant patient - bronchiolitis obliterans
- MC cause of Charcot joints - diabetes mellitus
- MC cause of CHF in a child - ALCAPA / aberrant left coronary artery
- MC cause of CHF in a neonate - hypoplastic left heart
- MC cause of tree in bud appearance on CT - bronchiolitis
- MC aortic branch involved in Takayasu arteritis - left subclavian
- MC cause of respiratory distress in newborns - transient tachypnea of the newborn
- Most common cause of Hypergonadotrophic Hypogonadism in males - Klinefelter's syndrome.
- Most common cause of chronic Hypercalcemia - Primary hyperthyroidism.
- Second most common cause of Hypercalcemia - Malignancy.
- Most common cause of Hypocalcemia - Impaired PTH or Vit D production.
- Most common histologic response to hepatotoxic stimuli -Fatty liver.
- Most common cause of respiratory hypoxia -Ventilation-Perfusion mismatch resulting from perfusion of poorly ventilated alveoli.
- Most common pattern in Irritable BS - Constipation alternating with diarrhea.
- Most common cognitive ability lost with dementia - Memory.
- Most common cause of Dementia - Alzheimer's disease > Vascular dementia.
- Most common predisposing condition for Subdural empyema - Sinusitis.

- Most common gene mutation in Duchenne's Muscular Dystrophy - Deletion(5').
- Most common cause of X linked Emery-Dreifuss MD-Emerin mutations.
- Most common cause of AD Emery-Dreifuss MD-Mutations of gene for lamin A/C.
- Most common of the glycolytic defects associated with exercise intolerance - McArdle's disease or Myophosphorylase deficiency
- Most common mitochondrial encephalomyopathy - Mitochondrial Myopathy, Encephalopathy, Lactic Acidosis, and Strokelike Episodes (MELAS).
- Most common indication for liver transplantation - Primary sclerosing cholangitis
- Most common clinical sign of renal disease in Lupus nephritis – Proteinuria
- CNS
- Most common causes of Sensory Ganglionopathies -Sjögren syndrome, Paraneoplastic.

Neuropathy

- Most common type of hereditary neuropathy - Charcot-Marie-Tooth (CMT1) disease.
- Most common cause of CMT2- mutation in the gene for mitofusin 2 (MFN2).
- Most common cause of Peripheral neuropathy in developed countries - DM.
- Most common cause of peripheral neuropathy in developing countries - Leprosy.
- Most common form of diabetic neuropathy - Diabetic Distal Symmetric Sensory and Sensorimotor Polyneuropathy.
- Most common mononeuropathies - Median neuropathy(wrist),Ulnar neuropathy(elbow).

- Most common cranial mononeuropathies - 7th > 3rd > 6th.
- Most common form of peripheral neuropathy associated with HIV - Distal Symmetric polyneuropathy.
- Most common extraarticular manifestation in Ankylosing Spondylitis - Acute anterior uveitis.
- Most common indication for surgery in patients with AS - Severe hip joint arthritis.
- Most common cause of renal failure in septic shock - Acute tubular necrosis.
- Most common site of Myocardial infarction - Ant wall of it. Ventricle(LAD > RCA > LCX).
- Most malignant form of NHL - Diffuse Large cell .
- Most common site of lytic lesion in Multiple myeloma - Vertebra > ribs > skull .
- Maximum content of tryglyceride is found in - chylomycrons
- Maximum content of exogenous tryglyceride is found in - chylomicrons
- Maximum content of endogenous tryglyceride is found in - VLDL
- Maximum content of cholesterol is found in - LDL
- Most common type of Hereditary Hemochromatosis - Type I (-HFE gene on chromosome 6.
- Type I & II are autosomal recessive, Type III & IV are autosomal dominant.
- Increased % transferrin saturation is the earliest phenotypic marker and is the best screening test available
- Most common blood cell transfusion reaction - Febrile Non Hemolytic reaction.
- Most common cause of Nephrotic range proteinuria - Membranous Nephropathy > DM
- Most common cause of superficial thrombophlebitis-IV catheters/infusion.

- Anti centzomere antibodies are most commonly associated with-CREST syndrome.
- Most common location of Brain abscess in Cyanotic HD – Frontal > Parietal .
- Impotence most commonly caused by – Beta Blockers and Thiazide Diuretics
- Most common CNS tumor associated with Neurofibromatosis I-Optic Nerve Glioma
- Most ionizing/energetic radiation-Alpha rays .
- Most characteristic feature of Acute inflammation - Vasodilatation and increased vascular permeability.
- Most effective bactericidal system within phagocytes-Reactive active metabolite mediated.
- Coagulative necrosis most commonly seen in - Ischaemic injury resulting in hypoxic cell death.
- Most suitable method for presenting frequency distribution of data gathered from continuous variables - Histogram .
- Most sensitive indicator of depletion of intravascular volume in infant - Heart rate(^).
- Most common sign of Alcohol withdrawal - Tremor.
- Most common symptom of Alcohol withdrawal - Hangover.
- Most common dose limiting toxicity of chemotherapeutic agents - Myelosupression with suppression of B/T cell mediated immunity.
- Best investigation for Amyloidosis - Rectal fat pad biopsy.
- Most common gene defect in idiopathic steroid resistant nephrotic syndrome - NPHS 2.
- Most common site of Histiocytosis - Bone.
- Most commonly affected organ in Amyloidosis - Kidney > Heart.

- Most common cause of death in Amyloidosis - CARDIAC.
- Most common form of systemic amyloidosis - AL amyloidosis.
- AL amyloidosis is MOST frequently caused by a clonal expansion of plasma cells in the bone marrow that secrete a monoclonal immunoglobulin LC that deposits as amyloid fibrils in tissues.
- Familial amyloidoses(AF) is most commonly due to mutations in transthyretin, the transport protein for thyroid hormone and retinol-binding protein.
- Most common mutation of Transthyretin(prealbumin) - TTR V30M.
- Pulmonary manifestations are most commonly due to - AL Amyloidosis.
- Most common form of Xeroderma pigmentation is due to - Absence of UV specific Endonuclease.
- Most common CNS manifestation of Whipple's disease - Dementia.
- Aβ is the most common form of localized amyloidosis.

CVS

- Most common cause of Right Ventricular Outflow Obstruction is - Infundibular stenosis (and least common is Valvular stenosis)
- Most commonly Coarctation of aorta is associated with - Bicuspid valve
- Most common site of Coarctation of aorta - Distal to origin of Left Subclavian artery
- Most common cause of Abdominal aortic Aneurysm - Atherosclerosis.
- Commonest part of subclavian artery for stenosis - 1st part.
- Right sided Aortic arch is most commonly associated with - Truncus arteriosus > TOF.

- Most common feature of aortitis on Chest X-ray - Calcification of ascending aorta
- Most common cause of Subarachanoid hemorrhage - Rupture of saccular or Berry aneurysm in the anterior circulation of circle of Willis.
- Most common location of HTNsive intracranial hemorrhage - Putamen (Basal Ganglia).
- Most common histological finding seen in Benign HTN - Hyaline arteriosclerosis.
- Most important prognostic factor in CHD - Pulmonary HTN.
- Most common cause of acute RVF - Acute Cor Pulmonale.
- Most important prognostic factor in CHD - Pulmonary HTN.
- Most common cause of acute RVF - Acute Cor Pulmonale.
- Most common cause of Acute/Chronic Cor Pulmonale - Pulmonary embolism.
- Most common cause of renal artery stenosis in children/Young - Takasayu arteritis(India), Fibromuscular dysplasia(west).
- Most common cause of renal artery stenosis in Older patients - Atherosclerosis.
- Most common cause of tricuspid regurgitation is secondary - Dilatation of rt.ventricle and Tricuspid annulus.
- Most common presentation of neurocysticercosis - Seizures.
- Most common site of cardiac myxoma - Left atrium.
- Most common cause of CVA - Embolism.
- Most common cause of intracerebral hemorrhage - Hypertension.
- Most common type of non traumatic intracranial hemorrhage - Intracerebral hemorrhage.
- Most common nerve involved in intracranial aneurysm - Occulomotor nerve.
- MC site of peripheral aneurysm - Popliteal artery aneurysm(Males).

- MC cause of acute mesenteric ischemia - Embolism(Cardiogenic). Most common site - Distal to origin of superior mesenteric artery.
- Most accurate investigation for assessing ventricular function - Transthoracic echo cardiography.

PEDIATRICS

- Most common sequelae due to periventricular leukomalacia - Spastic diplegia.
- MC life threatening complication of Measles - Pneumonia.
- MC complications of Measles - Diarrhoea, Pneumonia & other RTIs, Otitis media.
- Least common complication of Measles - SSPE.
- MC type of seizures in newborn - Subtle seizures.
- MC cause of seizures in infant's of Diabetic mothers – Hypoglycemia.
- Best indicator for Long term nutritional status - Height for Age.
- MC tumor in children - Leukemia (ALL).
- MC cause of short stature - Constitutional.
- MC fetal response to Acute Hypoxia - Bradycardia.
- MC malignancy in children- Leukemia.
- MC solid tumour in children- Brain tumor.
- MC brain tumor in children- Juvenile pilocytic astrocytoma.
- MC site of brain tumors in children- Infratentorial.
- MC site of brain tumor in neonates- Supratentorial.
- MC supratentorial tumor in children - Craniopharyngioma.
- MC posterior fossa tumor in children - Juvenile pliocytic astrocytoma.
- MC primary lymphoma of spleen - Small lymphocytic lymphoma.

- MC inherited tumor of childhood - Retinoblastoma.
- MC cause of seizure in newborn - Hypoxia induced ischaemic encephalopathy.
- MC leukocytoclastic vasculitis in children - Henoch schonlein purpura.
- MC Total anamalous pulmonary venous connection - Type I (Supracardial).
- MC cause of renal cystic disease in children - Unilateral renal dysplasia.
- MC cause of renal scarring in children - Vesico ureteric reflux induced Pyelonephritis.
- MC neoplasm of infancy - Neuroblastoma.
- Most frequently diagnosed neoplasm of infancy - Neuroblastoma.
- MC intra abdominal neoplasm of pediatric age group - Neuroblastoma.
- MC neoplasm/tumor of pediatric age group - Leukemias > Brain tumor > Lymphomas > Neuroblastoma > Wilm's tumor.
- MC cause of congenital Hydrocephalus - Aqueductal stenosois.
- MC type of congenital Hydrocephalus - Obstructing/Non communicating.
- MC cause of Heart disease in children - Congenital HD.
- MC mode of inheritance of CHD is - Multi factorial.
- MC cause of ambiguous genetalia in newborn - Congenital adrenal hyper plasia due to 21 hydroxylase deficiency.
- MC cause of female pseudo hermaphroditism - Congenital adrenal hyper plasia due to 21 hydroxylase deficiency.
- MC cause of Infant mortality rate in India - LBW > Prematurity.
- MC presentation of Hodgkin's Lymphoma - Painless enlargement of lymph nodes, commonly in the neck.

- MC cause of abdominal mass in neonates - Multicystic renal dysplasia.
- MC cause of chronic granulomatous disease in Children - Defective H_2O_2 production from Neutrophils
- MC abnormalities of chromosome number - Trisomies.
- MC trisomy - Trisomy 21(Down's syndrome).
- MC cause of portal HTN in children - Extrahepatic compression.
- MC cause of acquired hydrocephalus - Post inflammatory obstruction.
- MC testicular tumor in infants and children(< 3 yrs) - Yolk sac tumor.
- Best indicator of growth monitoring in children - Rate of increase in height & weight.
- MC presentation of neuroblastoma - Lytic lesion in skull with suture diathesis.
- MC site of Metastasis in Neuroblastoma - Bone.

SURGERY

- MC complication after ERCP - Acute pancreatitis.
- MC site of intestinal obstruction in Gall stone ileus - ileum(ileocaecal valve).
- MC type of choledochal cyst - fusiform dilatation of the extra-hepatic duct Type 1c
- MC type of congenital internal hernia - left paraduodenal hernia
- MC type of gallbladder inflammation - chronic cholecystitis
- MC type of abdominal wall hernia - inguinal hernia
- MC type of internal hernia - postop - transmesenteric hernias
- MC type of non-iatrogenic internal hernia - left paraduodenal hernia
- MC type of liver abscess - pyogenic liver abscess

- MC biliary complication s/p lap. cholecystectomy - bile duct leak from cystic duct stump
- MC biliary complication s/p liver transplantation - obstruction/ stenosis at anastomosis
- MC cause of chronic hydronephrosis in renal transolant - UV anastomosis stricture
- MC cause of colonic obstruction in adults - malignancy
- MC cause of colonic obstruction in the infants - meconium plug syndrome in CF patients
- MC peripheral artery aneurysm - popliteal artery aneurysm
- MC complication of popliteal artery aneurysm - distal ischemia (thrombosis/embolism)
- MC complication with IVC filters - DVT
- MC cause of biliary obstruction - choledocholithiasis
- MC involved segment of the colon with diverticulitis - sigmoid colon
- MC cause of thoracic outlet syndrome - scalene anticus
- MC abdominal emergency of early childhood - intussusception
- MC cause of toxic mega colon - pseudomembranous colitis
- MC osseous lymphoma, primary and secondary - diffuse large B-cell lymphoma
- MC component of mixed germ cell tumors - embryonal cell carcinoma
- MC cause of urinary obstruction in boys - posterior urethral valves
- MC indication for ileostomy is IBD and for colostomy is colorectal Ca.
- Overall mc indication for an ostomy is IBD > colorectal ca
- Femoral is most common hernia to strangulate
- Extra-abdominal hernia are more common

- Most common hernia in females is: Indirect inguinal hernia
- Most common cause of nipple discharge is: intraductal papilloma
- Most frequent complication of giant gastric ulcer is: perforation
- MC site of diverticulosis: sigmoid colon
- MC site of bleedin diverticula: ascending colon
- MC site of rupture of abdominal aneurysm is below the origin of renal arteries!
- MC underwarter blast inj. bowel > lung
- Blast injury organ affected: middle ear cavity > lung > bowel
- Penetrating abdominal inj. mc involves small intestines.
- Axillary abscess is drained safely by floor approach.
- Most common artery dissected during arterigraphy is external iliac artery.
- Spintcer of Oddi consists of 3 spincters at 3 levels 1 at the end of bile duct 2 at the end of pancreatic duct 3 around the ampulla.
- Accessory pancreatic tissue most commonly found in - Stomach and Meckel's Diverticulum
- Accesory Spleen most commonly found in - Spleenic hilum and vascular pedicle.
- MC indication for ERCP - Choledocholithiasis
- MC complication following ERCP- Acute Pancreatitis
- MC branchiogenic anomaly- 2nd branchial arch remnant.
- MC 2nd arch anomaly in children - fistulas > sinuses > cyst.
- MC 2nd arch anomaly in adults - cysts
- MC cause of Pseudomembranous colitis - Clostridium difficile.
- Lung Ca in India - Squamous cell Ca.
- Pyoderma Gangreosum is most commonly associated with - ulcerative colitis.

- Colovesical fistula most commonly arises from - Chron's disease.
- MC cause of pseudopancreatic cyst in children - Traumatic pancreatitis.
- MC site of pseudopancreatic cyst - Body and tail of Pancreas.
- MC type of intussusception - ileocolic > ileo-ileocolic > ileoileal > colocolic > Multiple > Retrograde .
- MC site of Deep vein thrombosis - Calf veins.
- MC cause of Pulmonary Embolism - Thrombosis of leg veins.
- MC source of Emboli - ileo-femoral veins.
- MC benign tumor of stomach - Leiomyomas.
- MC presentation of Leiomyoma - Asymptomatic.
- MC symptom of Leiomyoma - GI Bleeding.
- MC site of regional enteritis - Distal ileum and colon

UROLOGY

- The most common ...cause of acute prostatitis is E. coli.
- Location for prostate Cu is in the peripheral zone of the prostate gland
- (and best) diagnostic imaging technique for prostate Cu is TRUS
- renal anomaly is horseshoe kidney
- renal inflammatory disorder is pyelonephritis
- renal tumor is renal cell carcinoma
- source of renal neoplasm is metastasis
- cause of penetrating bladder injuries are GSW, stabbing, and possibly MVAs
- surgery performed on males is circumcision
- solid malignancy in males age 18-35 is testicular cancer
- cause of erectile dysfunction is vasogenic

- MC Renal vascular Anomaly -Supernumerary renal arteries.
- MC site of Urethral carcinoma in men - Bulbomembranous urethra.
- MC Histological subtype of Urethral carcinoma - Squamous cell Ca.
- MC cysts of the spleen - Hydatid cysts.
- MC extranodal site of lymphoma - Stomach.
- MC type of Gastric lymphoma - NHL (B cell)
- MC cause of Hypothyroidism in India - Iodine Deficiency
- MC cause of Hypothyroidism in developed countries - Hashimoto thyroiditis
- MC site of rupture of Abdominal aortic Aneurysm - Laterally into the left Retroperitoneum
- MC cause of spontaneous bloody discharge from a single duct - Benign solitary intraductal papilloma.
- MC site of Morgagni hernia(CDH) - Right side
- MC complication of end colostomy - Parastomal hernia.
- MC muscle affected by congenital absence - Pectoralis Major/ Minor.
- Most sensitive investigation for DCIS - Mammography.
- Most common malignancy found in Marjolin's ulcer - Squamous cell Ca.
- Most important prognostic factor in Breast Ca - Tumor staging.
- MC cause of Gastric outlet obstruction - Ca Stomach
- MC cause of acquired arterio venous fistula - Penetrating trauma.
- Most preferred route for Pitutary surgery - Trans-sphenoidal (Nose).
- MC site for CSF Rhinorrhoea - Cribriform plate and air cells of ethmoid sinus.
- Most important prognostic factor in Wilm's tumor - Histology > Staging .

- MC childhood CNS tumor to metastasise outside brain - Medulloblastoma.
- Best test for intestinal malabsorption - D-xylose test.
- Best prognostic factor for head injury - Glassgow coma scale.
- Sister Mary Joseph Nodule is most commonly seen in - Ca stomach.
- Characteristic Radiological feature of Fibrous dysplasia - Ground glass appearance.
- MC bruised part of body with less impact - Face.
- MC cause of Esophagitis - Esophageal reflux.
- MC cause of death in Crohn's disease - Malignancy.
- Most important prognostic factor in RCC - Pathological staging.
- MC cause of fracture of roof of orbit - Brow trauma.
- MC complication of coeliac plexus block - Hypotension.
- MC site of Curling's ulcer - Duodenum.
- MC site of cholangiocarcinoma - Perihilar region(Hepatic duct bifurcation). Klatskin
- MC presentation - Painless Jaundice.
- Perihilar cholangiocarcinomas - tumors.
- MC cause of insertional tendonitis of Tendoachilles - Overuse.
- MC testicular tumor in prepubertals - Yolk sac tumor.
- MC testicular tumor - Seminoma.
- MC testicular tumor (> 50 yrs) - Lymphoma.
- MC cause of Postop renal failure - Decreased renal perfusion.
- MC cancer affecting Indian urban women - Ca breast > Ca cervix.
- MC cancer affecting Indian women – cervix.
- MC type of hiatus hernia - Sliding/Axial tpye.

- MC complication of hiatus hernia - Esophagitis due to reflux.
- MC site of carcinoid tumor – (BIRACS) Bronchus > Ileum > Rectum > Appendix > Caecum > Stomach.
- MC presentation of wilm's tumor - Asymptomatic abd mass > Abd pain.
- MC and earliest manifestation of Ca Glottis - Hoarseness.
- MC site of oral cancer among Indians - Alveobuccal complex (Buccal mucosa > Anterior tongue > Lower alveolus).
- MC site of oral cancer worldwide - Lip.
- MC malignant tumor of adult males in India - Oropharyngeal Ca.
- MC injured nerve during McBurney's incision - Iliohypogastric.
- MC hernia following McBurney(Grid iron) incision - Rt.inguinal.
- MC cause of obliterative stricture of membranous urethra - RTA with Fracture pelvis and rupture urethra.
- Fall astride injury usually involves Bulbar urethra.
- Prolonged catheterization may involve any part of urethra.
- MC site of Peptic ulcer - 1st part of duodenum .
- MC site of GOO/stenosis in peptic ulcer - 1st part of duodenum.
- MC cause of U/L parotid swelling in young adult - Pleomorphic Adenoma.
- MC manifestation of Mumps - Parotitis(Bilateral). (70-90%)
- MC manifestation(after parotitis) in post pubertal males - Orchitis. (30%)
- MC manifestation(after parotitis) in females - Oophritis (5%)
- MC manifestation(after parotitis) in children - Aseptic meningitis.
- MC cause/form of Thyoiditis -Hashimoto's thyroiditis
- MC surgical cause of Obstructive jaundice - CBD stone.

- MC benign tumor of spleen - Hemangioma .
- MC tumor/Malignant tumor of spleen - Lymphoma.
- MC cause of Acute epiglottitis - H. influenzae.
- MC cause of bulbar urethral stricture - Gonococcal infection.
- Most sensitive imaging modality to detect early renal TB - IVP.

ORTHOPEDICS

- MC acetabular fracture - posterior acetabulum
- MC carpal dislocation - transscaphoid perilunate dislocation
- MC type of meniscal tear - oblique/ flap tear
- MC type of temporal bone fractures - longitudinal type
- MC type of fracture of the proximal 5th metatarsal bone - Peroneus brevis avulsion fracture
- MC injured ankle ligament - anterior talofibular
- MC involved joint with Charcot arthropathy - tarsal & tarsometatarsal
- MC type of shoulder dislocation - anterior
- MC type of hip dislocation - posterior
- MC nerve involvement in Volkmann's contracture - Median nerve.
- MC fracture leading to fat embolism - Femur.
- MC cause of Air borne dermatitis in India - Parthenium.
- MC sites of Avasular necrosis:
  (a) Head of femur - Fracture Neck of femur .(Most - Subcapital, Least-Basal), Posterior dislocation of Hip.
  (b) Proximal pole of scaphoid - # through waist of Scaphoid.
  (c) Proximal pole of Lunate.
  (d) Body of Talus - Fracture neck of Talus.
- MC complication of intertrochanteric # Femur - Malunion .

- MC site of skeletal TB - SPINE.
- MC site of tuberculous spondylitis - T12, L1.
- MC route of infection - Hematogenous.
- MC variety of TB spine - Para discal.
- MC presenting symptom - Back pain.
- Earliest symptom of TB spine - Stiffness due to spasm of inter vertebral muscles.
- Earliest radiological sign of TB spine - decreased disk space.
- MC cause of loose bodies in a joint - Osteochondritis dessicans
- MC complication of Myelography - Headache
- Location of hip fracture is at the femoral neck and intertrochanter.
- Sprained ligament is the anterior talofibular ligament.
- Foci of acute hematogenous osteomyelitis are the metaphases of long bones secondary to turbulent flow.
- Variety of osteoporosis is the involutional type, often seen in post-menopausal women.
- Musculoskeletal morbidity in the elderly is osteoarthritis.
- The most moveable joint is the genohumoral joint.
- Most strongest bone segment is the femoral shaft.
- Fracture for avascular necrosis is femoral neck
- Fracture in young is lesser trochanter
- Fracture in elderly is neck of femur/intertrochanter
- Fracture in shoulder dystocia is clavicle
- Injured knee ligament is ACL
- Cause of septic arthritis is Gonococcus
- MC fractured tarsal bone is- Calcaneum
- MC site of Osteosarcoma- Lower end of Femur

- MC cause of death following Total Hip Replacement - Thromboembolism (Pulmonary embolism) .
- MC spinal injury - Flexion injury .
- MC site of osteosarcoma - Lower end of femur>upper end of tibia > upper end of humerus.
- MC cause of Carpel tunnel syndrome - Idiopathic .
- MC nerve involved in fracture of surgical neck of humerus- Axillary nerve .
- MC etiological agent of Acute osteomyelitis - Staph. aureus .
- MC site of Acute osteomyelitis - Metaphysis .
- Earliest sign to appear on X-ray - Periosteal new bone formation.
- MC site of osteogenic sarcoma - Lower end of femur.
- Pond fracture is most commonly seen in - Children(due to elasticity of skull bones) .
- Ring fracture(around foramen of Magnum) is most commonly- Direct violence.
- MC cause of Rupture of tendon - Overuse.
- Major mineral of the bone - Hydroxyapatite.

OBSTETRICS AND GYNECOLOGY

- MC cause of Tubal block in India - Genital TB .
- MC cause of Tubal block in developed countries – Chlamydia
- MC causes of vaginitis in symptomatic women are bacterial vaginosis (40-45%), vaginal candidiasis (20-25%), and trichomoniasis (15-20%);
- Bacterial vaginosis is the most common cause of vaginitis, accounting for 50% of cases
- MC cause of ovarian Androgen excess - PCOS.
- MC congenital anomaly associated with Lithum - Eibstein's anomaly.

- MC cause of Down's syndrome - Maternal Non disjunction in Meosis-I.
- MC genital lesion in AIDS - Herpes simplex.
- Most effective contraception in lactating mothers-Progesterone only pill.
- MC Gestational trophoblastic disease - Hydatiform mole > Invasive mole.
- Most common cause of Post menopausal bleeding - Endometrial Ca .
- MC cause of Post menopausal bleeding in Indian women - Ca Cervix.
- MC ovarian cyst to undergo torsion - Benign cystic teratoma.
- MC site for Female tubal sterilization - Isthmus.
- Maximum cardiac output during pregnancy - Immediate postpartum > Labour.
- The risk of vertical transmission is highest in - Third trimester.
- Most sensitive investigation for diagnosis of asymptomatic chlamydial infection. Nucleic and amplication (NAA)
- Best contraceptive method for newly married healthy couple - OC pills.
- Most sensitive diagnostic test for ectopic pregnancy - Transvaginal Ultrasound.
- Best index for contraceptive efficacy - Life table analysis.
- Best indicator of ovarian reserve - FSH.
- MC congenital anomaly in infant of IDDM - Cardiovascular.
- Most characteristic congenital anomaly in infant of IDDM- Caudal regression syndrome.
- Red degeneration of fibroid is most common during 2nd trimester.
- MC cause of secondary amenorrhoea in India - Endometrial TB.

- MC malignant germ cell tumor of ovary - Dysgerminoma.
- MC cause of non gonococcal urethritis - Chlamydia trachomatis.
- MC genital prolapse - Cystocoele.
- Retention of urine in a pregnant woman with retroverted uterus most commonly seen at - 12-16 weeks (^frequency of micturition)
- MC cause of Maternal mortality in India - Hemorrhage > Abortion > Anaemia >Toxaemia .
- MC site of metastasis in choriocarcinoma - Lungs > Cervix.
- MC malignant ovarian tumors - Serous Ca's.

OPHTHALMOLOGY

- Refractive surgery is radial keratotomy.
- Type of glaucoma is chronic open-angle glaucoma.
- Glaucoma-related surgical procedure is trabeculectomy.
- Cause of blindness in the developed world is proliferative diabetic retinopathy.
- Etiology of visual loss in patients with diabetes mellitus is macular edema.
- Cause of eye malposition is lagopthalmos secondary to eyelid retraction, proptosis, and CN VII palsy.
- Cause of proptosis in children is periocular infection
- Cause of proptosis in adults is Grave's Disease.
- Cause of red eye is conjunctivitis.
- Cause of ocular venous occlusion is glaucoma.
- Tissue transplant is corneal
- Reason for corneal treatment: pseudophakic bullous keratopathy

- MC cause of Ocular MORBIDITY in India- Cataract
- MC cause of BLINDNESS in INDIA- Cataract (Park 21st/ p372)
- MC primary intra ocular tumor in $5^{th}/6^{th}$ decade - Malignant melanoma.
- MC cause of spontaneous vitreous hemorrhage in adults(older) - Proliferative Diabetic retinopathy.
- MC cause of vitreous hemorrhage in younger people - Trauma.
- MC retro orbital mass in adults - Cavernous hemangioma.
- MC secondary malignancy in survivors of Retinoblastoma – Osteosarcoma.
- Parakeratosis is most commonly seen in - Actinic Keratoses.
- MC malignant tumor of eyelid - Basal cell Carcinoma.
- Maximum refractive index - Centre of the lens(1.386-1.406).
- Strongest refractive power - Cornea .
- MC cause of Ocular MORBIDITY in India - refractive errors/ Cataract
- MC cause of BLINDNESS in INDIA - Cataract

PATHOLOGY

- Most common inherited blindness due to mitochondrial chromosomal anomaly - Leber's hereditary optic neuropathy.
- Most common pathological feature in DM - Diffuse glomerulosclerosis.
- Most common presentation of primary biliary cirrhosis - Pruritis.
- Renal vein thrombosis is most commonly associated with - Membranous glomerulopathy.
- Most common renal lesion in leprosy - Membranous Glomerulonephritis.

PHARMACOLOGY

- Most common side effect of Fluoxetine therapy - Gastrointestinal disturbances.
- Most common side effect of Haloperidol - Extrapyramidal symptoms.
- Most common side effect with chronic use of Phenothiazines - Tardive dyskinesia.
- MC life threatening in primary Blast - Blast lung.

RADIOLOGY

- Phase of cell cycle Most sensitive to Radiotherapy - G2/M
- Phase of cell cycle Most resistant to Radiotherapy- End of S phase
- Most sensitive to Radiotherapy - Dividing cells
- Most sensitive to Chemotherapy - S-Phase
- Phase of cell cycle in which Radiation exposure leads to Chromosomal aberration-G1
- Phase of cell cycle in which Radiation exposure leads to Chromatid aberration- G2
- Maximum radiation exposure to patient - Bone scan > CT scan > X-rays.
- MRI/USG/Thermography - No radiation risk
- Most radiosensitive tumor- Seminoma > Dysgerminoma.
- Most important sign of renal artery stenosis on angiogram - Presence of collaterals.
- Most common hormone deficiency after intracranial radiation therapy - Growth hormone.

MISCELLANEOUS

- Common substance of abuse in India/World wide - Cannabis.
- Most common mode of Lead poisoning - Inhalation.
- Most reliable criteria in Gustafson method of Age estimation - Transperency of root

- Most reliable method of identification of an individual - Dactylography.
- Most common pattern of Finger prints - Loop.
- Most abundant glycoprotein in basement membrane - Laminin.
- Most reliable method of blood alcohol estimation - Gas liquid chromatography.
- Pterygium of nail is most commonly/Characteristically seen in - Lichen planus.

SITES

- MC location of intracranial dissection - vertebral arteries
- MC location of intraorbital abscess - subperiosteal space on medial wall
- MC location of intraventricular meningioma - atrium of the lateral ventricle
- MC location of oligodendroglioma - frontal lobe
- MC location of pleomorphic xanthoastrocytoma - temporal lobes
- MC location of DAI - frontotemporal gray–white matter junction
- MC location of bronchogenic carcinoma - right upper lobe
- MC bone to develop an osteochondroma - femur (tibia second most common)
- MC location of benign and malignant masses in breast - upper outer quadrant
- MC location of coarctation of aorta - postductal beyond the origin of the left subclavian artery
- MC location of coronary calcifications - LAD
- MC location of a meningioma in the spine - thoracic spinal cord
- MC intracranial for site of teratomas - pineal region

- MC intracranial presentation of TB - Tuberculous meningitis
- MC location of GIST - stomach
- MC location of GU obstruction in neonatal male - ureteropelvic junction
- MC location for abdominal sarcoid involvement - stomach
- MC location for gallbladder perforation - fundus
- MC location for typhlitis - cecum
- MC location to see asbestosis sequale - posterior lower lobes
- MC location for atelectatic asbestos pseudotumor - posteromedial & lateral basal region of lower lobes
- MC location for chordomas - sacral spine
- MC location for well-differentiated liposarcoma - thigh
- MC intrathoracic fetal anomaly - congenital diaphragmatic hernia
- MC intrathoracic foregut cyst - bronchogenic cyst
- MC genitourinary organ affected by neurofibromas - urinary bladder
- MC location of a periurethral diverticulum in a female - posterolateral
- MC location of an ectopic pregnancy - ampullary region of the fallopian tube
- MC location for sclerosing osteomyelitis of Garré - mandible
- MC congenital intracranial tumor - epidermoid or inclusion cyst
- MC congenital anomaly of CNS in live births - myelomeningocele
- MC congenital defect of CNS - anencephaly
- MC congenital head and neck cyst in a child - Thornwaldt cyst
- MC congenital valvular heart disease - bicuspid aortic valve
- MC congenital abnormality of GI tract - Meckel's diverticulum

- MC congenital lesion of bile ducts - choledochal cyst
- MC congenital skeletal dysplasia - achondroplasia
- MC type of noninflammatory odontogenic cyst - dentigenous cyst

Most common causes of death

- SLE -- Lupus nephritis
- Rheumatoid arthritis -- Carditis
- Scleroderma -- Pulmonary
- Amyloidosis --Congestive cardiac failure
- Hemochromatosis -- Congestive cardiac failure
- Acromegaly -- Cardiac failure
- Wilson's disease -- Liver failure
- Sarcoidosis --Cor pulmonale
- HIV -- Pneumocystis pneumonia
- Leprosy -- Renal failure
- Cancer cervix -- Renal failure
- Cancers -- Infections and neutropenia
- Guillian Barre syndrome -- Respiratory failure
- Amyotrophic lateral sclerosis -- pneumonia
- Paroxysmal nocturnal hemoglobinuria --Thrombosis
- ESRD -- Volume overload
- Peutz Jeghers syndrome -- Intususseption
- Duchennes muscular dystrophy -- pneumonia
- Becker's dystrophy -- Cardiac failure
- Myotonic dystrophy-- Heart blocks
- Crohn's disease --malignancy.

CHAPTER 6

MNEMONICS

CHROMOSOMAL TRANSLOCATIONS

1 ⟶ **R**h system

2 ⟶ Cystinuria

3 ⟶ **V**-H-L (**V**on **H**ippel **L**indau) (⟶ **RCC**)

4 ⟶ **F**our Short (Achondroplasia) "Hunt"ers (Huntingtons Disease) in a Park (Parkinsons)

5 ⟶ "**F**"ive = "**F**"amilial Adenomatous "Polyp"(FAP)
= C-O-L-O-N Cancer
= Cri-du-chat syndrome (chat = 5/-)

6 ⟶ (**H**-L-A) (MHC) ="Shortest Six")

⟶ **B**-E-R-G-E-R disease

⟶ Diabetes

7 ⟶ **Cystic Fibrosis** (CFTR = AR)
(6) → 7 ← (8)

8 ⟶ **O**steo-P-E-T-R-O-S-I-S / Burkitts (B=8) Lymphoma

9 ⟶ (**A**-B-O system) CML (BCR = ABL gene) (9:22)
TS (Three Square = Tuberous Sclerosis)
F-R-I-E-D-R-I-C-H Ataxia

10 ⟶ '10' Cows in a DEN is COWDEN syndrome (10 p)

11 ⟶ MEN Syndrome 'M'EN-IN Blue (Indian team) are '11' (so they Dominate = AD) (MENIN gene)
⟶ MEN-2 ⟶ 10(one player less)
⟶ '**W**'ilms tumor / Mantle Cell Lymphoma
⟶ **A**taxia Telangectasia
⟶ **P**TH gene

12 ⟶ PKU/Ca testes/Von Willebrand Factor

13 ⟶ **R**-E-T-I-N-O-B-L-A-S-T-O-M-A (Rember 13) (13q14)

⟶ **O**-S-T-E-O-S-A-R-C-O-M-A-A (13)

⟶ **W**ilsons disease

14 ⟶ "**F**"ollicular Lymphoma (Fourteen)

⟶ α - Anti Trypsin deficiency

⟶ Familial HOCM

15 ⟶ **M**arfan syn/Albinism/Prader-Villi syn/ Angelman syn (15 q)

16 ⟶ **P**oly Cystic Kidney Disease (Adult) (AD)

$(4^2) \rightarrow 4$ = PCKD (Child = 4^2= 4 and 6, AR)

α-thalassemia

17 ⟶ **N**-E-U-R-O-F-I-B-R-O-M-A-T-O-S-I-S

BRCA (Breast + Ovarian)

Medullo Blastoma

19 ⟶ **M**yotonia Dystrophica

20 ⟶ **M**ODY-type-1 DM/Prion disease (CJD)/Alports (Xd)

21 ⟶ **H**omocystinuria/Amyloidosis) (Folate Transporter)

22 ⟶ **D**igeorge (CATCH-22)

⟶ **M**eningioma

⟶ **A**ccoustic Neuroma

⟶ **N**euroFibromatosis-2

Neuro Blastoma ⟶ 1p loss/17q gain

Medullo Blastoma ⟶ 17p deletion

Retino Blastoma ⟶ 13q deletion

Ewings ⟶ 11 (FLA – EWS) = Birds with 11 (**E**-leven **Wingsfly** easily)

You can convert 11 into M or W

M = **M**antle Cell Lymphoma (t (11:14)

M = **M**EN Syndrome

W = **W**ilms tumor

M = **M**ultiple mycloma = t (11:14) (13:32)

AML

M0 → <3% MPO + → CD 13/33/117/2,7,19 TdT

M1 → >3% MPO + → CD 13/33/HLA – DR

M2 → t (8:21) → CD 13/33/DR-56,19,34 (2 × 4) = 8

M3 → t (15:17) → CD 13/33/9/CD_2 (3 × 5) = 15

M4 → t = inv(16) → CD 13/33/34/36/64/116 (4 × 4) = 16

M5 → Chr 11/9 → CD 116/14/26

M6 → RBC → CD36 (6 × 6) = 36

M7 → CD 41/CD 61

- Melanoma looks like INK stain ⟶ **P**16/INK4a
- Basal Cell Ca looks like a PATCH on skin ⟶ **P**TCH Gene (Gorlin's Syndrome)
- Neuro FIBROMATOSIS ⟶ 17th chromosome (17q11)
- VON HIPPEL LINDAU (V-H-L) ⟶ 3rd chromosome (3p)
- (T)UBEROUS (S) CLEROSIS ⟶ 9th chromosome ((T)hree (S)quare)
- MEN SYNDROME ⟶ 11th chromosome ⟶ MEN IN BLUE = INDIAN
- B-E-R-G-E-R's Disease ⟶ 6th chromosome
- R-E-T-I-N-O-B-L-A-S-T-O-M-A ⟶ 13q**14**
- COWDEN Syndrome ⟶ **p** TEN ⟶ (ten cows in a den)

- FAP Syndrome ⟶ **F** = FIVE (APC Gene)
- Ewing's Sarcoma ⟶ **E**leven chromosome (t11,22) (EWS – FL1) (birds with eleven wing fly easily)
- Prader Willi Syndrome ⟶ **P**aternal (15th)
- Angelman syndrome ⟶ (**M**other) Maternal (mother is angel) (15th)
- Fragile X syndrome ⟶ **H**as full Fragile testis (Macro orchids)
- DNA Repair syndromes ⟶ **U** cant Repair a Big FAX (BFAX)
  - ⟶ **B** – Bloom syndrome
  - **F** – Fanconi anemia
  - **A** – Ataxia telengectasia
  - **X**–Xerodema pigmentosum

- **Melanoma looks like a INK stain:** p16/INK4a gene
- **Basal cell carcinoma appears like a PATCH:** PTCH gene(Gorlin syndrome)
- **GARDNER syndrome:** imagine a GARDEN where long cucumbers(GIT Polyps), cauliflower(mandibular osteomas) and onions(epidermal cysts) are grown [FAP]
- **TURCOT syndrome:** Turban ⟶ Head tumors (Medulloblastomas, Optic nerve gliomas) and GIT polyps
- **COWDEN syndrome:** TEN(Pten gene) COWS in a DEN makes it a COWDEN(10q)
- **EWINGS sarcoma:** birds with Eleven WINGS FLY easily (t(11;22)(EWS;FLI)
- **P'rader willi syn:** P'aternal deletion(15)
- **Angelman syndrome:** Maternal deletion(15)(Mother is Angel and babies of angels are Happy Puppets(involuntary laughter and mental retardation)

- Imagine p53 is like a 108 vehicle.....it takes an injured person(cell) till its stopped by a traffic police(p21(G1 arrest) and takes to a Doctor(GADD45) who ultimately places the dead body in a BOX(BAX gene=apoptosis)
- **DNA repair defects:** You cant repair a **B**ig FAX (**B**looms syndrome, **F**anconi anemia, **A**taxia telangectasia, **X**eroderma pigmentosum)

BIO-CHEMISTRY

Hyper cholesterolemias: CLIVE

Type I ⟶ Chylomicrons CM have → Tryglycerides > C

II ⟶ A ⟶ LDL LDL → Cholesterols

II ⟶ B IDL → Ideal = TG = C

III ⟶ IDL VLDL → TG > C

IV ⟶ VLDL HDL → Cholesterols

V ⟶ Equal [I + IV ⟶ CM + VLDL] [1 + 4 = 5]

Inhibitors of oxidative phosphorylation/Electron Transport Chain

Step 1: (flavin Mono nucleotide) ⟶ Roten'One' (Ra-one!)

Step 2: (FAD ='DI'nucleotide) ⟶ 2 (MM) ⟶ M'ethyl M'alonate(SDH)

Step 3: (C—Cyt B1/C1) ⟶ 3AAA ⟶ A'ntimycinA'/ B'A'L

Step 4: (a + a3) ⟶ 4G ⟶ 4 Gases(cyanide/CO/H2S/ Azide)

ATP 'Syn'thetase ⟶ Oligomy'sin'

ATP—track—ADP-- ⟶ A'tract'yloside

Thermogenin ⟶ uncoupler in babies

➥ Local anesthetics ⟶ those with two i's are amides.....(iim Ah) ⟶ those with one i are esters

Sites of biochemical reactions

Cytosol Glycolysis(Embden Mayerhoff pathway)

- Glycogenesis
- Glycogenolysis
- HMP pathway
- Fatty acid synthesis

Mitochondria ⟶ Kreb's cycle

- Electron transport chain
- Fatty acid oxidation

Both cytosol and mitochondria:

- Gluconeogenesis
- Urea cycle

Co-factors in biochem

Superoxide dismutase ⟶ **Man**'ganese(Super man), **Cop**per(super cop), Iron

Glycosyl transferase ⟶ Manganese

Glutathione **P**eroxidase ⟶ **S**elenium(GPS)

Xanthine **Ox**idase ⟶ **MO**lybdenum(rember MO-XOlactam)

Storage Disorders

Tay-**S**ach disease ⟶ Hexosaminidase(TSH)

F-**A**-brys disease ⟶ **A**'lpha galactosidase(**A-A**)

Kra-**B-B**-es disease ⟶ **B**-galactosidase(BB-B)

Gauchers disease ⟶ Alpha-GLUCO-sidase(Gauti gambhir needs glucose)

Metachromatic **L**eukodystrophy ⟶ **A**rylsulfatase(MLA)

Niemann-**P**ick disease ⟶ **S**phingomyelinase(NS)

F-A-B-E-rs Disease ⟶ C'eramidase(ABCDEF on jumbling letters)

- AIDP

  Active Insulin in DephosPhorylated state (Opposite for glucagon)

ENT

HIGH frequency sounds are lost at HIGHer age ⟶ Presbyaccusis

ParaNasalSinuses: MEFS

- Maxillary(4 months) ⟶ M'ax space(15 ml)
  ⟶ M'ax infection
  ⟶ M'ax cancer
- Ethmoid(1 yr) ⟶ E'arliest to appear
  E'xcessive activity(children)(15 cells)
- Frontal(6 yrs) ⟶ F'irst involved in complications (mucocele, pyocelee, osteomyelitis
  F'riend of O'steoma
- Sphenoid (4 yrs) ⟶ Sight disturbances

Tympanograms

A_N ⟶ N = Normal
A_S ⟶ S = Sclerosis = Otosclerosis
A_D ⟶ D = Discontinuity (Ossicular chain)
B ⟶ B = Bulging (thick) tympanic membrane
C ⟶ C = Clogged Eustachian tube

FM

- Ass BALLs ⟶ As(Arsenic) ⟶ Rx is BAL
- L-E-a-D ⟶ ED ⟶ EDTA

FETUS

Fertilisation	– '0' day
Morula (M-O-R-E)	– '4' day ("more")
Blastocyst (B-L-A-S-T)	– '5'day
Implantation (IMPLANT)	– '7' day (Site – Ampulla)

C-R-L (32) – '9' weeks (best indicator)
S-E-X G-O-N-A-D – 8 weeks
S-E-X G-E-N-E-T-I-L-I-A – 12 weeks
O-E-S-O-P-H-A-G-U-S – 10 weeks
THYROID (T'en) – 10 weeks
R-E-S-P-I-R-A-T-I-O-N – 11 weeks
F'irst clotting factor – F'ibrinogen
F'ive weeks
Remaining 12 factors – by 12 weeks
Gestational Sac – 4 weeks
Yolk sac – 5 weeks
Heart (Cardiac activity) – 5 weeks (5-6)wks
} G-Y-C-E 4-5-6-7
Eye movements – 7 weeks
G-L-U-C-A-G-O-N – 8 weeks
Anterior pituitary – 10 weeks
Thyroid harmones – 11 weeks
Posterior pitutary – 12 weeks
Insulin

GYNECOLOGY

IUD

1st Generation ⟶ Lippes loop
2nd Generation ⟶ Copper T —
C_UT -200 ⟶ 3 years
C_UT-200B ⟶ 4 years
Multiload-250[300] ⟶ 3 years
Multiload-375[500] ⟶ 5 years
N-O-V-A-T ⟶ 5 years
CuT-380A ⟶ 10 years
3rd Generation ⟶ Progestasert ⟶ 1 year
LNG-20 [M-I-R-E-N-A] = 5 years

NTD → Neural Tube Defects

F ⟶ Folic acid deficiency
Five (500 mg) daily requirement
Four (4 mg – Pregnancy supplementation)
Four (4 months = 1 + 3) Periconceptional
Female child (most commonly seen)
Face presentation
First anamoly detected on USG (Anencephaly)
Frog eyes
Frontal bone scalloping (Lemon sign)
Banana sign
Full fluid (Polyhydramnios)

Remember 4 E's of Pregnancy

*E-Eisenmenger syndrome MCC of CVS related death
*E-Ebstein's anomaly in infants when mother takes Lithium
*E-Hepatitis E-MCC causing fulminant hepatitis
*E-Ephedrine--vasopressor of choice in pregnancy

I-mmediate clamping of cord should be done in:

I'mmaturity
I'nfant of Diabetic Mother (IDM)
I'ncompatibility(Rh)
Immunodeficiency of (HIV)

Biophysical profile

MANNINGs scoring — (Manning = BATMAN)

- B – Breathing
- T – Tone
- A – and
- A – Amniotic fluid volume
- M – Movements
- N – NST

BISHOPs score

- B----------
- I – iffacement
- S – Station
- H – Hard or soft(consistency)
- O – Opening(Dilatation)
- P – Presenting part

MANNINGS score!

MAN = BATMAN

B	–	Breathing
A	–	Amniotic fluid
T	–	Tone
M	–	Movements
A	–	and
N	–	NST

MEDICINE

Kasabach Meritt syndrome

Kasab used a HTC phone
Hemangioma
Thrombocytopenia
Coagulopathy

Caplan syndrome

CAPlan: Combination of Arthritis and Pneumoconioses

Story Mnemonic about Hairy Cell leukemia

Ther was this black TamilNadu Fat uncle(TNF) wid a fat tummy(massive spleenomegaly) and hairy body(hairy cells) and a wig...he used to marry many gals of ages 19, 20, 21(CD).... wen asked y...he said its his wish and he wud go further to 103 to 123(CD)...so all his wives decided to teach him a lesson..

They TRAP(+) him...beat him to blue..tear his pockets and found a comb with all hair(Honeycombed app) and nothing in the purse (Pan-cytopenia)...

They beat him in the stomach and made it normal (Spleenectomy) and finaly place a cap on his head(Cladirabine(DOC) CAP regimen....

➥ **Drugs causing SLE like picture:** A big fatty aunty(using Statins) with a fatty neck(on Anti-thyroids) came to hospital with joint pains(Anti Rheumatics=DMARD) and breathlessness(Anti Tuberculous).....she got angry (B-blockers) wen told to reduce her weight...suddenly she had a seizure attack(Anti Epileptics) and went into cardiac arrest(Anti Arrythmics)

- Shrinking lung—SLE

  – Shock lung—DIC

- Hyperploidy is good prognostic indicator in ALL(All is well) and bad for Multiple Myeloma

Congestive cardiac failure

AB – Apex Beat is shifted

CD – Cardiac Dullness

EF – Edematous Feet

GH – Giant Hepatitis

IJ – Inflated JVP

KL – Kongested Lungs

MN – No Murmurs

OP – Orthopnea

QRST – ECG finding

UV – Urine Voiding less

WX – weight Xcess

YZ – Yellow conZunctiva

➥ **BALLints syndrome:** imagine a footBALL – the cente black dot implies Optic nerve(Optic ataxia) and the surrounding four dots represent 4 dots represent extra ocular muscles(Occulomotor apraxia)....both combined its Simultagnosia....lesion of parietal lobe..

Causes of Priapism

- Tragedy with Trazodone is Priapism
- Cantharidine--Cantha(female in telugu language)
- A SICK infant always rises his dick ⟶ Sickle cell anemia

Venoms

C'obra – C'NS toxicity

V'ipers – V'essels(heamatotoxic)

S'ea snakes – S'keletal muscles

Muscular dystrophies

- Duchene muscular dystrophy - describe
- Beckers muscular dystrophy
- Persons working in IBM and doctors doing MD DM hav finger weakness due to constant work with their fingers ⟶ distal weakness (characteristic of Inclusion Body Myositis and Myotonic Dystrophy)
- Baby born to a mother with Myasthenia Gravis can have myasthenia(congenital) for 3 days only!

⇨ Barter syndrome with SNHL (Sensorineural hearing loss) ---- type 4(S-N-H-L)

- WIRE loop lesions are seen in type 4 SLE(W-I-R-E)

↪ IgA deposition is seen in: **A Big CRASH**

- A– IgA
- B – Bergers disease
- C – Cirrhosis
- R – RA(Rheumatoid arthritis)
- A – AS(Ankylosing spondylitis)
- S – SLE(Systemic Lupus Erythematosus)
- H– HSP(Henosch Schonlein purpura)

MAHA(MicroAngiopathic Hemolytic Anemia) is seen in SHIVA(god) ⟶ **MAHA SHIVA**

S – SLE

H – HUS

I – ITP of renal vessels(Renal vein thrombosis)

VA – Vasculitis

- **Tamm(T) Horsfall(H)** protein is secreted by (T)hin ascending limb of loop of (H)enle

Pituitary apoplexy is seen in SIADH

S-Sheehan syndrome/Shock/Sickle cell anemia

I – Idiopathic

A – Adenoma of pituitary

D – Diabetes mellitus

H – Hypertension

Carpal tunnel syndrome

MEDIAN nerve is TRAPPED and thumb is always Median(Abductor palsy)

– Myxedema

– Edema

– Diabetes

– Idiopathic

– Acromegaly

– Neoplastic

– Trauma

– Rheumatoid arthritis

– Amyloidosis

– Pregnancy

Working principles

- Pulse oximetry: Infra red
- UV-B: TT-dimerisation
- Phototherapy: structural isomerisation(bili ⟶ lumi) (450-475)
- Ultrasound: piezzo electric effect
- COMPT'O'N: high energy photon ⟶ O'uter electrons
- Photo-E-lectr-I-c- ⟶ low 'E'nergy photon ⟶ 'I'nner electrons

Wavelengths

- Woods lamp – 360 nm
- *l*-tryptophan – 280 nm
- Phototherapy – 450 + –25
- Ear surgery – 250 mm
- Paranasal surgery – 300 mm
- Laryngeal surgery – 400mm
- Excimer – 193 nm [LASIK]
- Argon – 500 nm
- Krypton – 605 nm
- Nd-YAG – 580 nm
- Double Nd YAG – 1060 nm

Ophthal Lasers

- Nd-YAG ⟶ after cataract/capsulotomy/iris/vitreous
- Argon-green ⟶ trabeculotomy for glaucoma
- Diode laser ⟶ retinal photocoagulation
- Krypton red ⟶ retinal detachment
- Excimer–Argon fluoride ⟶ Lasik

Some rules of 6

- Conservative rx of appendicular mass — **6** weeks
- Conservative rx of pseuducyst of pancreas — **6** weeks
- Toxic megacolon is prone to rupture after > **6** cms
- Abdominal Aortic Aneurysm is operated > **6** cms
- Desflurane is sympathomimetic if conc > **6**%
- Congenital cataract is operated at **6** weeks
- Medullary carcinoma of Thyroid ⟶ neck nodes ⟶ 6 th level
- T. Appendectomy – 6 wks
- T. Cholecystectomy – 6 wks
- ARM – 6 hrs
- Most of the prognoses of cancers are around 60%

Hypercalcemia--causes ⟶ MAD PENIS (due to excess calcium)

- Milk-alkali syndrome
- Addisons disease
- Diuretics (thiazide)/D vitamin excess
- Pagets disease/Para-neoplastic syn
- Endocrine
- Neoplasms(multiple myeloma)
- Immobilisation/Idiopathic
- Sarcoidosis

JONES criteria for Acute rheumatic fever:

J – Joints = polyarthritis

O – Obviously heart

N – Nodules = subcutaneous

E – Erythema marginatum

S – Sydenham chorea

Dermatomyositis

Post exposure to sun
Periocular heliotropic rash
Papules (Gottrons)
Periungual telengectasia
Priapism
Palmar hyperkeratosis
Poikilidermatosis (Shawl sign)
Perivascular/Perimysial inflammation
Paraneoplastic syndrome
Prednisolone

P. falciparum has; FROG

F – Falciparum
R – Ring forms
O – AccOle forms
G – Gametocytes

Wernickes Korsakoff syndrome ⟶ alcohol and AIDS ⟶ NACO

– N — Nystagmus
– A — Ataxia
– C — Confusion
– O — Ophthalmoplegia

Kidney: collagen deposition disorders

NCD(Non Collagenous Domain) of collagen(COL A4)

– Alpha1 – nothing
– Alpha2 – nothing
– Alpha3 – G-P-S ⟶ GoodPasure syndrome
– Alpha4 – T-H-I-N ⟶ Thin membrane disease
– Alpha – ALL the five ⟶ ALports syndrome

Neuroendocrine granules ⟶ paragangliomas

- Inclusion bodies in oligodendrocytes ⟶ PMLE (Progressive Multifocal Leuco Encephalopathy)
- Intracytoplasmic sarcolemmal vacoules ⟶ Inclusion Body Myositis

'A'taxia telangectasia

- A = 1 chromosome
- A = Auto recessive
- Ataxin gene = ABNORMAL MOVEMENTS
- A (IgA) is decreased
- AFP is increased
- Atrophy on MRI

Triad of Normal Pressure Hydrocephalus(NPH) ⟶ A person Forgets(DEMENTIA) where the bathroom is and pisses(DIABETES INSIPIDUS) all through the way irregularly(ATAXIA)

HOCM

- Hypertrophic Obstructive Cardiomyopathy
- Deaths of athletes
- Dyspnea
- Diastolic dysfunction
- Double apical impulse
- Diamond shaped murmur

HLA-B27 syndromes: PAIR B27

Psoriatic arthritis
Ankylosing spondylitis
IBD associated arthritis
Reiters syndrome

➡ *A guy forgets [Dementia] wer the bathrum is and pisses [incontinence] right through the way irregularly [Ataxia]... its Nrml Pressre Hydrocephalus NPH

*Step ladder pyrexia – seen in Typhoid

*Step ladder dementia – Multiple infarct dementia

*Step ladder pattern on electrophoresis – apoptosis

Alkalosis: Metabolic changes

Think: "Al-K-loss & Al-Ca-loss" Thus,

Loss of K^+ causing, hypokalemia

Loss of Ca^{++} causing hypocalcemia

- Cronkhite-Canada syndrome ⟶ I have a Canada friend with pink lips(Polyps)....one day a crow from a height(Cronkhite) shits on his head...he scratches it with his nails(Nail atrophy) and leads to hairfall(Alopecia) i.e polyps+ectodermal defects!

Keans Sayre was a very famous singer .... he was visually disabled (1) and used to perform only during daytime (2) .... atlast he died due to cardiac arrest (3) performing on the stage...

KEANES-SAYRE syndrome =

1-CPEO-External Opthalmoplegia

2-Retinitis Pigmentosa

3-Compelte heart block!

Albumino-cytological dissociation

- With normal cell counts is Guillian-Barre syndrome
- With elevated cell counts is HIV

↪ Delirium in Alzheimers disease is due to decreased Acetylcholine

Delirium in Parkinsons disease is due to increased Dopamine

MICROBIOLOGY

- **P. vivax** has all large forms – taller...larger...stronger....as they drink 'viva'
- Sheath protects in LBW!! Cricket Pads protect frm LBW..
- Loa Loa
- Brugia
- W. Bancrofti
- Drink BRU to the bottom....as BRUGIA has nuclei upto the bottom!!

Strep aGALactiae

A GAL

who Hip(hippurate) dances in a CAMP

meets a Boy(grp B)

through genital tract

gives a beta(son) hydrolysis) with meningitis leaving NO Traces (not bacifracin sensitive)

Man becomes an intermediate host for:

- Dog ⟶ Hydatid disease ⟶ Echinococcus granulosis
- Cat ⟶ Toxoplasmosis
- Pig ⟶ Taenia solium
- Mosquito ⟶ Malaria

⇨ Autoinfection ⟶ organism gets settled in Satyam TECH Company

- Strongyloides
- Taenia
- Enterobius
- Cryptosporidia
- H.nana
- Capillariae

Parasites causing Anemia

PLANTD (planted in body and suck blood)

- Plasmodium
- Leishmania
- Ancylostoma
- Necator
- Taenia
- Diphyllobothrium latum

- **Organism which don't divide: Pin** the **File** with a **Hook** (pin worm, filariasis, ancylostoma)
- Haemophilus (Lovely heart Filled with Chocolate)

  Philus = Lovely = Levinthals

  Heamo = Blood

  Chocolate = Chocolate heart

  Filled = Fildes medium
- **Acid Fast organisms** ⟶ LMNOPQRST
  - Legionella
  - Mycobacterium
  - Nocardia
  - O – spores Z
  - Protozoa(Cyclospora, Isospora)
  - Q-nothing
  - R-Rhodococcus
  - Sperm head
  - Taenia

ORTHOPEDICS

Round cell tumors = imagine round eggs in NIRLEP pan

- N – Neuroblastoma
- I – Ilms(Wilms)
- R – Rhabdomyosarcoma
- L – Lymphoma
- E – Ewings
- P – Primitive Neuro endocrine tumors

Giant cell tumors ⟶ ABCDEFGH

- A – Aneurysmal bone cyst
- B – Brown tumor(hyperparathyroidism)
- C – Cysts/Commonest tumor-Osteosarcoma
- D – Distant metastases
- E – _____
- F – Fibroma
- G – Giant cell granuloma
- H – Histiocytoma

OPHTHALMOLOGY

Visual Field defects

Optic nerve	→	I/L Blindness
Chiasma	→	Bi temporal hemianopia
Optic tract	→	Homonymous hemianopia
Temporal lobe	→	Superior quadrantic
Parietal lobe	→	Inferior quadrantic
Optic radiation	→	Homonymous hemianopia
Occipital lobe	→	Macula sparing homonymous hemianopia

Prominent **corneal** neves are seen in ⟶ LINK

- Leprosy
- Idiopathic
- Neurofibromatosis
- Keratoconus

Superior orbital fissure contents

Lateral ⟶ LFTs Solve recurrent liver abnormalties in Middle aged men

- L – Lacrimal
- F – Frontal

- T – Trochlear
- Solve – Superior ophthalmic vein
- Recurr – Recurrent ophthalmic br of Lacrimal artery
- Middle aged Men – Middle meningeal artery

Middle ⟶ MONA

- O – occulomotor
- N – Nasociliary nerve
- A – Abductent

➥ Trauma causes death and we place a ROSE boquet ⟶ ROSE'TTE cataract

➥ Aqeous has no colour as it is secreted by NON-pigmented epithelium

Cherry red spot: GOLD SPOT!

3G – **G**auchers, **G**M1 gangliosidosis, **G**oldberg syndrome
O – **O**bstruction (CRAO)
LD – **L**euko**D**ystrophy (Metachromatic)
S – **S**andhoff dis
P – **P**ick Niemann dis
OT – **O**cular **T**rauma(Berlins edema = Commotio retinae)

ONCOLOGY

➥ **Highly Radiosensitive:**	**Radioresistant**
Lymphoma	Melanoma
Seminoma [Yuvi]	Osteosarcoma
Myeloma	Bladder
Ewings [melts like snow]	Renal cancer
Wilms tumor	Cervix cancer

⟹ MC Paraneoplastic endocrinopathy(Cushing) is **never** seen in RCC(renal)

- MC cause of L'ymphangitc C'arcinomatosis is L'ung C'ancer(LC=LC)
- Lymphangitis carcinomatosis ⟶ Certain
  - Cancers – Colon
  - Spread – Stomach
  - By – Breast
  - Plugging – Pancreas
  - The – Thyroid
  - Lymphatics – Lungs(MC)

PATHOLOGY

- **F**'ragile X syndrome has **F**'ull **F**'ragile testes(Macro orchids)
- **LAP score:** decreased in (L)eukemia-CML
  (A)nd
  (P)aroxysmal nocturnal heamoglobinuria(PNH)
- Receptors for Collectin(Opsonin) ⟶ colle-Q-tin ⟶ C1q
- Prostaglandins which cause vaso-DIE-lation ⟶ D,I,E
  E2 ⟶ E-nhances pain
  I2 ⟶ I-nhibits platelet aggregation
- **Leuko-TRI-ene B4:** TRIes to move neutrophils(chemotactic)
  Lipox-IN B4: IN-hibits chemotaxis
- Deficiency of NADPH Oxidase (1) X Recessive—MEMbranous ⟶ (X-MEN) (2) Auto recessive—cytoplasmic ⟶ (Auto-Cyto)

Autosomal recessive disorders

ABCDEFGH
B-thalassemia
Deafness
Friedrichs ataxia
Gaucher disease
Homocystnuria, Hemochromatosis
Albinism
Cystic fibrosis
Emphysema

- **Ormonds disease :** idiopathic retroperitoneal fibrosis
- **Ogilives syndrome :** idio acute intestinal pseudo obstruction
- **Ortner syndrome :** dysphagia lusoria due to aberrant artery
  - Types of collagen ⟶ BASE-ment membrane(BASE = 4) ⟶ Vessels (V = 5) ⟶ V-E-R-T-E-B-R-A-E(9)

PHYSIOLOGY

➥ Hormones secreted by corpus luteum are: RIPE

- Relaxin
- Inhibin
- Progesterone
- Estrogen

GIT cells

- Argentaffin cells=Brunners glands ⟶ mucin
- Chief cells ⟶ pepsinogen
- C cells ⟶ interstitial cells of Cajal ⟶ Basal electric rhythm
- D cells ⟶ somatostatin
- Ebner cells ⟶ lingual lipase
- ECL(Enterochromaffin like cells) ⟶ seretonin, histamine
- Goblet cells ⟶ mucus
- G cells ⟶ Gastrin
- H2 receptors ⟶ Hydrochloric acid
- I cells ⟶ cholecystokinin(ICC)
- K cells ⟶ Neurotensin, Gastric Inhibitory Peptide(GIP)
- L cells ⟶ pancreatic YY
- M cells ⟶ Motilin
- Neck cells ⟶ mucin+HCO_3
- Oxyntic = Parietal cells ⟶ HCl + Intinsic Factor(P-IH)
- Paneth cells ⟶ Guanylin(Crypts of leiberkuhn)
- S cells ⟶ Secretin

Appetite related substances

Gautam gambhir(Gauti—Agauti related peptide--AGRP) needs a girl(GALP)....when asked why(Y=neuropeptideY)....he said I have severe desire for food(OREXINs) and sex(GnRH) and growth bigger(GH) and colour(MCH).....but MSH(mahendra singh dhoni) told me not to marry...

GH-REL-IN-

- G-gastric cells-D cells
- GH-Growth Hormone
- IN-increases appetite

Reflexes

- Gastro ⟶ Enteric ⟶ Ileo ⟶ Colic reflex.....all are stimulatory if you move forward in the sequence and inhibitory in reverse order(e.g. Gastro-Enteric reflex is stimulatory and Entero-Gastric reflex is inhibitory)

➥ $C'O_2$ C'loses(vasoC'onstiction) everywhere except C'NS

➥ O'_2O'pens everywhere except Lungs

➥ nightmaRE occurs during REM (RE...REM)....

We REMember night mare....

PHARMACOLOGY

Drug Metabolism

CYP 3A4	⟶	Antiarrhythmics Anticholestrol drugs (statins) Anti-immune ART (Antiretroviral therapy)
CYP2C9	⟶	Convulsions (phenytoin) Coagulation (warfarin) Converting enzyme (ACE inhibitors)
CYP2D6	⟶	Depression (Anti Depressants) Dilators (β-Blockers)
P-Glycoprotein	⟶	Digoxin (PG – Diploma)

FULVESTRANT

Full ⟶ Complete
Estr ⟶ Estrogen receptor
Ant ⟶ Antagonist

Drugs causing pancreatitis

Remember 1, 2, 3, 4, 5
1 = A = Asparginase, ACE inhibtors
2 = Di-danosine
3 = Tri-amterene
4 = Tetra-cycline
5 = Penta-midine

- Queen(RANI)was blind(ARMD) So king made Ranibizumab..
- **Done** sumab is for **Bone**~ Rank Ligand
- EGFR--**EG**fr--Erlotinib, Geftinib
- E-T-O-P-oside-**E**arly leukemia is a s/e...used for **T**estis, **O**at cell, **P**rostate
- *Solenizumab is for Solole persons – Alzheimrer disease
- VARENICLINE → V-A(agonist)-RE(receptors)-NI(nicotine) CLINE → latest drug for smoking cessation
- ALISKIREN → ALISK-I(Inhibitor)-REN(Renin) → Rx of primary hypertension
- RAMELTEON→R(receptor MT1,2)-A(Agonist)-MEL(Melatonin)-TEON → Rx of insomnia

DAPTOMYCIN

D – Depolarisation (MOA)
A – All inf, (infections)
P – Pulmonary surfactant is its inhibitor
TO – TO be avoided in pneumonia
MY – Myopathy
CIN – CIdal (bactericidal)

- Heparin Induced Thrombocytopenia(HIT) ⟶ autoantibodies against Platelet factor 4 ⟶ HIT a 4!!

Phosphodiesterase(PDE) inhibitors

- Nonspecific ⟶ Theophylline
- PDE-3 ⟶ Cilastazole
- PDE-4 ⟶ Roflumi-LAST....cilumi-LAST
- PDE-5 ⟶ Sildenafil

⇒ **Barter syndrome** — Na-k-2C*l* defect ⟶ similar to loop diuretics like **Frusemide(B-F)**

- Gi-**T**-elman synd—Ca+2 sensing receptor defect ⟶ z(**T**-Thiazide like defect)
- Difference between thiazide and loop diuretic is that **Loop Looses calcium**

Cyclosporine – side effects are all hyper!

- Hypernatremia
- Hyperkalemia
- Hypercholestrolemia
- Hyperbilirubinemia
- Hypertrichosis
- Hypercalcemia
- Hyperglycemia
- Hyperuricemia
- Hyperplastic gums

Oral Contraceptive pills: Overall increase in

- Hypertension
- Hyperglycemia
- Hypertriglyceridemia
- Hyperbilirubinemia
- Hypertension(benign intracranial htn—pseudotumor cerebri)

Drug causing both

- hypo and hyperglycemia is Pentamidine
- hypo and hyperkalemia is Lithium
- hypo and hyperthyroidism is Amiodarone

↪ Fentanyl causes wooden chest syndrome = respiratory 'mu'scles thru 'mu' receptors

Amiodarone

- Prolongs APD (Action Potential Duration)
- Photosensitivity
- Pigmentation
- Pulmonary Fibrosis
- Peripheral Neuropathy
- Peripheral Conversion of $T_4 \rightarrow T_3$ blocked

Induction agents in heart disease...If u have heart disease eat(etomidate) in bar(barbiturate) drive benz (benzediazepenes) propose(propofol) many gal and at last get drug addicted (opioids)..

SPM

Yellow fever-know the 123s....

1 – 2 days of fever

3, 4, 5, 6 days – incubation period

6 – 6 days of Quarantine

7 – 17D vaccine

8 – 80% mortality rate

10 – revaccination after 10 yrs

A disease free area is when

- Neonatal tetanus is < 0.1/1000
- Rabies free for — 2 yrs
- Plague free for 3 months
- Cheopis index is 0

Eradication for

- Measles — 95%
- Diphtheria — 70%
- Polio — 66%

Drugs for prophylaxis

- Anthrax ⟶ Ciprofloxacin(A-B-C — remove B)
- Cholera ⟶ Doxycycline(C-D)
- Diphtheria ⟶ Erythromycin(D-E)
- Plague ⟶ Tetracycline(P-T)
- Meningococcal ⟶ RIfampicin(MRI)

Endemic treponematoses

- Ten yaws(buffaloes) in a pInto car go on a trip on a hot(enda = hot in telugu) and in bijilee
- Treponema.per'TEN'uae ⟶ YAWS
- Treponema.CARateaum ⟶ PINTA
- Treponema.ENDEmicum ⟶ BEJEL

Cyclo-**P**-ropagative – **P**-lasmodium

Cyclo-**D**evelopmental – **E**ndemic **F**ilariasis, **G**uinea((CD-EF-G)) **P**~lague is jus **P**~ropagative!

PEDIATRICS

Congenital Cyanotic Heart Diseases

Spread ur hand fingers and read like...

1 = thumb = single large vessel = Truncus arteriosus

2 = two = two vessels interchange
= Transposition of great vessels

3 = Tri-cuspid stenosis

4 = Tetra-logy of Fallot

5 = Total = TAPVC

SURGERY

Sarcomas in which Lymphatic Metastasis is seen

Can be remembered by the mnemonic SAUCER (Lymph = milk in SAUCER)

S – Synovial cell sarcoma

A – Angiosarcoma

U – Unknown

C – Clear cell sarcoma

E – Epithelial cell sarcoma

R – Rhabdomyosarcoma

Vitelline duct: Time of closure

"VItelline"

The VItelline duct usually closes around week VI of intrauterine life.

GRAVE'S disease signs

- Da-R-L-ymple sign ⟶ R'etraction of eye-L-id
- Stellwags sign ⟶ Infrequent blinking ⟶ (like Sehwag = infrequent batting)
- Von graef sign ⟶ Lid lag on looking down (we look down in grief)
- Rosenbach sign ⟶ lid tremors wen eyes closed (tremors while giving rose!)
- Jo-F-F-roy sign ⟶ F-acial F-olds are absent (absent wrinkles)
- M-O-E-B-I-U-S sign ⟶ Meeting Of Eyeballs Is Un-Successful

Thyroid

Papillary Ca of Thyroid	Follicular Ca
P ⟶ Popular (Most common)	F ⟶ Focal
Post radiation	Follicles of MNG
Post Hashimoto's	Flow dependant (Blood) spread
Post Aberrant (LAT's)	Fulsatile secondaries
Pleocentric	Fontanelle of skull (MC site for metastasis)
Pathognomic (Orphan Annie Nuclei)	
Psammoma bodies	
Petite (least malignant)	

Polyadenopathy (lymph node Invasion-most common)

Brown tumor – secondary hyperparathyroidism

Browns syndrome – cong tethering of extra ocular muscles

Brown sign – Glomus tumor

Brown fat-nonshivering thermogeneiss

Tumors which grow more during pregnancy...

MNoP...
o is silent..
M – Meningioma
N – Neurofibroma
P – Pituitary adenoma

MESS scoring: remember as MESSI

- Man of Age
- Energy (of impact)
- Shock
- Signs of
- Ischemia

Revised Trauma Score(RTS)

- R – Respiratory rate — CNS = CGS
- T – Tension(BP) (or) CVS = BP
- Score(Glassgow coma scale) — RS = RR

TRISS score: remember as TR + ISS + A

- TR – Revised Trauma score
- ISS – Injury Severity Score
- A – Age

C'ontraceptives and C'igarette C'ause C'rohns disease

Smallest cancer(Small cell carcinoma of lung) causes **largest** bodies(CUSHINGs habitus)

- Cu-S-H-ing ulcers ⟶ S = Stress, S = Stomach(mc site), H=Head injury
- Cu-R-ling ulcer ⟶ bu-R-ns ⟶ Duodenum(mc site)

Carcinoma penis ⟶ PENIS

P — Precancerous lesion—Erythroplasia of Queyrat

E — External iliac artery invasion is MC of death

N — No pain

I — Inguinal lymph nodes

S — Squamous cell carcinoma

Bone in Bone ⟶ Osteopetrosis spine

Hole in Bone ⟶ Eosinophilic granuloma

Breast in Breast ⟶ FibroAdenoma

Pathway of sperms: SEVEN UP ⟶ Seminiferous tubules ⟶ Epididymis ⟶ Vas deferens ⟶ Ejaculatory ducts ⟶ Nothing ⟶ Urethra ⟶ Penis

UC(ulcerative colitis) = SC(sclerosing cholangitis) = PC(pancreatic cancer) ⟶ CA-19-9(Marker)

ESWL resistant renal calculi

Remember CCMB(Center for Cellular and Molecular Biology)

- Cysteine
- Ca hydroxide Monohydrate
- Brushite

Radioluscent renal stones: XITU

- Xanthine
- Indinavir
- Triamterene
- Uric acid

I'leostomy is most commonly done for I'BD(Inflammatory Bowel Disease)

- C'olostomy is most commonly done for C'olorectal cancer

Ulcerative colitis is an ULCER! Soooooooooo...

- Ulcer in Rectal(MC site)
- Ulcer that involves only mucosa with mucus production(only cryptitis/No chance of granuloma, stricture, fissure, fistula, lymphoid)
- Ulcer that is flat (no mass lesions ⟶ only pseudopolyps ⟶ hose pipe appearance)
- Ulcer that creeps continuously (no skip lesions)
- Ulcer that remits ⟶ heals on treatment
- Ulcer that recurs ⟶ recurs again so it's a precancerous condition

↪ Appendices epiloicae are Absent in Appendix

Ligaments

IPL can be seen in LG tv and PC...

IPL ⟶ Inguinal = Poupart Ligament(both hav 'u')

LG ⟶ Lacunar = Gimbernaut ligament

PC ⟶ Pectineal = Cooper(both have 'c')

MISCELLANEOUS

- P'altauff's hemorrhages ⟶ P'leural
- P'urtschers retinopathy ⟶ P'ancreatitis ⟶ P'osterior retinal artery

NAMED

LOEFGREN Syndrome(Sarcoidosis)

Lymphadenopathy(Bilateral Hilar Lymphadenopathy)

Osteoarthropathy

Fever

Granulomatous Uveitis

Red eye

Erythema

Nodosum

SARCOIDOSIS

'S' ⟶ Schaeurman Calcification

'A' ⟶ 'A'steroid bodies/Anergy/ACE levels ↑

'R' ⟶ Restrictive Lung/Restrictive Cardiomyopathy Renal Calculi

'C' ⟶ CD_4 cells/Calcification/ ↑Calcium levels

'O' ⟶ Ocular lesions (Uveitis – candle dripping)

'I' ⟶ Immune granulomas/Immunoglobulins ↑

'D' ⟶ Vitamin D↑ /Diabetes insipidus/Dyspnea

'O' ⟶ Osteopathy

'S' ⟶ Skin/Subcutaneous nodules

'I' ⟶ Interleukin-1/Interstitial lung disease

'S' ⟶ Seventh nerve palsy

EDWARD's Syn:

- E ⟶ Eighteen (18th chromosome)
- D ⟶ Digital flexion
- W ⟶ Wide head
- A ⟶ Absent intellect
- R ⟶ Retardation/Rocker bottom feet
- D ⟶ Diseased heart
- S ⟶ Small lower jaw

FRAGILE-X Syn: is transmitted by FEMALES

- F – FMR-1 gene/Full Fragile testes [Macro Orchidism]
- E – Exhibits Anticipation
- M – Males/Macro orchids
- A – Autism/Anticipation
- L – Long face/Large jaw
- E – Everted Eyes
- S – Second most common cause of mental retardation
  – Sherman Paradox

FABRY's disease

- F – Foam cells
- A – Alpha Galactosidase/Angiokeratoma
- B – Boys/Burning Pain/Blood urea N2 ↑
- R – Renal Failure
- Y – Y Phenotype = Boys (X Recessive)
- S – S Phingolipidoses

MCARDLE'S disease

'M' – Muscle Phosphorylase/Myoglobin
C – Cramping Pain
A – Accumulation of Glycogen
R – Recessive
D – Deficient Muscle Phosphyrylase
L – Low Lactase
E – Elevated Creatine Kinase
S – Skeletal muscle only

STURGE WEBER Syn

S – Stain (Port Wine Stain)
T – Total cercebral atrophy
U – UMN paralysis
R – Recurrent seizures/Calcification
G – Glaucoma
E – Epilepsy

PIERRE ROBBIN Syn

P – Palate
I – Isolated [Cleft Palate]
E – Everted
R – Retrognathism *
R – Respiratory
OB, B – Obstruction
I, N – Inward tongue

WHIPPLE's Syn

- W - Weight loss
- H - Hyperpigmentation
- I - Infection with Trophyrema Whipple
- P- Polyarthritis
- P- PAS ⊕ in macrophages
- L- Lymphadenopathy
- E – Enteric
- S – Steatorrhoea

- Good Pasture Syndrome ⟶ **G**'lomerolo Nephritis
  P'ulmonary Haemorrhage
- Peutz Jeghers Syndrome ⟶ **P**'igmentation of lips/**P**olyps
  J'ejunal **P**olyps
- Kartageners Syndrome ⟶
  - **S**'inusitis
  - **B**'ronchiectasis
  - **I**'nversus (Situs inversus)
- Patterson Kelly Syndrome (WIG) ⟶ (Ashley patterson is a character from a novel she wears a WIG)
  Webs
- Wiskott Aldrich Syndrome (WAS) ⟶ Wisk "**hott**" = hot = fevers (infections)
  Aldr **itch**= itch = Eczema (I_gE)
  WASP gene (WAS protein)
- MEN-1 Syndrome (3P) ⟶ **P**itutary hyperplasia
  Parathyroid hyperplasia
  Pancreatic Hyperplasia
- MEN-2A ⟶ **P**arathyroid hyperplasia
  Pheochromocytoma
  Medullary carcinoma of thyroid
- MEN-2B (3 M) ⟶ **M**edullary carcinoma of thyroid
  Mucosal ganglioneuromas
  Marfanoid habitus

- PARINAUD syndrome ⟶
  - P – Posterior commissure (Dorsal mid brain)
  - A – Aqueductal Stenosis
  - R – Retracted eyelid
  - I – Ischemia (CVA)
  - N – Nystagmus on convergence
  - A – Absent
  - U – Upgaze
  - D – Downward eyes
  - S – Skew deviation

- Henoch–Schonlein Purpura:
  - H ⟶ Hematuria
  - S ⟶ Synovitis
  - P ⟶ Palpable Purpura
  - Pain Abdomen
  - Platelet Count is Normal

- Denys Drash syndrome ⟶
  - D → Dysgenetic gonads
  - D → Dominant negative inheritance
  - D → Diffuse messangial sclerosis

- Gradenigo Syndrome
  - D → Diplopia
  - D → Deep retro orbital pain
  - D → Discharge from ear

- Niacin deficiency ⟶ D – Diarrhea
  - D – Dementia
  - D – Dermatitis
  - D – Dyssebecia (kind of seborrheic dermatitis)
  - D – Death

- Trotter's triad (Nasopharyngeal Angiofibroma) ⟶
  - F- Facial pain (V nerve)
  - F – Fixity of ossicles
  - F – Fixity of palate

- Leriche syndrome → I – **Intermittent Claudication**
  I – **Im**potence
  I – **Im**palpable pulsations in femorals
- McCune-Albright Syndrome → P – **Po**lystotic Fibrous Dysplasia
  P – **Ps**eudo precocious puberty
  P – **Pi**gmentation
- Cogan's syndrome → C – **C**ochlear deafness
  O – **O**pthal (Interstitial Keratitis)
  G – **G**lucocorticoids for treatment
  A – **A**ortic involvement
  N – **N**erve deafness
- VHL syndrome → V – Vascular tumors
  H – Hemangioblastoma of eye/CNS
  L – L-iver cysts(pancreas+kidney)

Ca Bladder	**Cholangio carcinoma**
Cigarettes	Choledochal cyst
Chemicals	Colitis (ulcerative colitis)
Cercariae (Schistosoma)	Cholangitis (primary sdelerosing cholangitis)
Chlornaphazine	Carriers (typhoid)
Chronic UTI	Clonorchis sinesis
Catheterisation + Diverticula	

Centrilobular Necrosis of liver	**Periportal**	**Focal Scatter**
Congestive Heart Failure (CHF)	PIH	Hepatitis
Collapse (shock)	Phosphorous	[Virus particles scattered]
Calpol (acetaminophen)		
Carbon tetrachloride		
Chloroform		

Sinking eggs in salt Solution	**Sub endocardial Hemorrhage**
Solium (Taenia)	Concussion
Saginata	Catecholamines
Strongyloides	Continuous Hemorrhages
	Cocaine

Crohns Disease	**Accommodation in eye**
Contraceptives (OCP's)	Converging power
Cigarettes	Ciliary muscle
	Construction of pupil
	Curvature of lens Changes

Vogt Koyanagi syn → VKH syndrome = (V)itiligo/(V)ertigo
(K)ernigs encephalopathy
(H)air fall (ectodermal def)

Vogts triad → **E**pilepsy + Adenoma Sebaceum + Low intelligence [Tuberous Sclerosis]

Vogts striae → **K**eratoconus

Hunters tongue → **P**ernicious anemia

Hunters canal → **A**dductor canal

Hunters syndrome → Polysaccharidosis

Virchow cell → **L**epra cell

Virchow node → **L**eft supra clavicular lymph node

Virchow triad → **I**njury to endothelium + Stasis + Hyper conagubility

Virchow disease → **A**myloid degeneration

Virchow dissection → **A**utopsy [individual organ]

Lupus pernio → **S**arcoidosis [skin lesions]

Lupus vulgaris → **S**kin lesions in tubereulosis

Lupus profundus → **D**iscoid Lupus erythematosis [DLE]

Lupus timidus → **DLE**

- Strawberry tongue → **K**awasaki disease
- Strawberry gingiva → **W**egeners granulomatosis
- Strawberry vagina → **T**richomoniasis
- Strawberry scrotum → **S**ebaceous cysts of scrotum
- Strawberry gall bladder → **C**holesterosis of gall bladder
- Strawberry hemangioma → **H**emangioma over face (regresses spontaneously)

- Triple bubble → **J**ejunal atresia
- Triple test → **D**owns yndrome (AFP + β HCG + Unconj. Estrogen)
- Triple deformity → **TB** + **R**heumatoid **A**rthritis + **P**olio (TRiPle)
- Triple assesment → **B**reast cancer
- Triple **H** treatment → **S**ub Arachnoid Hemorrhage
  Hemodilution
  Hypervolemia
  Hypertension
- Triple Endoscopy → **N**asopharyngoscopy + Laryngoscopy + Endoscopy

Triple immuno-suppression (RCC) → **C**AP (Cyclophosphamide + Azathioprine + prednisone)

Triple arthrodesis → **F**lat foot [Subtalar + CC + TN joint]

- Meckels diverticulum → **R**emnant of vitello intestinal duct
- Meckels cartilage → **M**andibular arch [b/w in lus malleus]
- Meckels ligament → **B**etween malleus and wall of tympanic membrane
- Meckel cave → **F**or trigeminal ganglion
- Meckel ganglion → **S**pheno palatine ganglion [Sluder neuralgia
- Meckel syndrome → **M**eckel Gruber syndrome [Refer Syndromes]

- Erythema marginatum → **R**heumatic fever
- Erythema chronicum migrans → **L**yme disease
- Erythema nodosum → **S**yphilis/Streptococus/Sarcoid/TB/IBD/**SIT**
- Erythema nodosum leprosum → **L**eprosy
- Erythema ab igne → **P**ancreatic Cancer
- Hutchison's Sign → Sublingal melanomna triangular pigmented macule + Nail dystrophy

- Hutchison sign → **A** lesion on the tip of nose
- Hutchison teeth → Congenital syphilis [blunt upper incisor]
- Hutchison rule →
- Hutchison triad → **I**nterstitial Keratitis + Hutchison teeth + 8th Nerve deafness

- Orange placenta → **S**yphilis
- Orange tonsil → **T**angier disease
- Orange (Peaud Orange) → **C**a breast
- Orange skin → **C**arotenemia
- Orange urine → **D**ehydration
- Orange amniotic fluid → **P**ost maturity

- Geographic tongue → **A**IDS
- Cerebriform tongue → **P**emphigus
- Strawberry tongue → **K**awasaki dis
- Scrotal tongue → **F**issured tongue

- Swimming pool granuloma → **M**yco-marinum
- Swimming pool itch → **S**chistosoma
- Swimming pool conjunctivitis → **A**denovirus

- Hammans sign → Pneumo mediastinum in esophageal rupture
- Homans sign → Deep vein thrombosis
- Holman Miller sign → Naso pharyngeal angio fibroma

- Wer'M'er → 'M'EN syndrome-23
- Wer'N'er → Progeria [premature ageing] (Ner'd)

- Coast of California sign → Neuro Fibromatosis
- Coast of Maine → McCune Albright Syndrome

- Migratory polyarthritis → Rheumatic fever
- Migratory rash → Lyme disease [Erythema Chronicum migrans]
- Migratory pulmonary opacities → Cryptogenic Obliterative Organising Pneumonia
- Migratory thrombophlebitis → Trosseau syndrome ParaNeoplastic of pancreas Cancer

- Ames test → Chemical carcinogenesis
- Ames criteria → Thyroid carcinoma
- Amsel criteria → Bacterial vaginosis
- Ambler criteria → Beta lactamase produsing bacteria
- Amie's medium → Transport medium for Neisseria

- Waldayers ring → Lymphatic ring
- Waldayers fascia → Recto-prostatic sheath
- Waldayers sheath → Peri-ureteric sheath of vessels near vesico-ureteric junction

MegaColon

Congenital – Hirschsprung disease

Aquired –

Cancer

Chagas

CNS-Polio, Multiple sclerosis

Cholines(Ach)

Monitor Cell 'lines' if you use 'Line'zolid!

Pancytopenia is side effect

- **IDBI bank:** I'ron is absorbed in D'uodenum and B'12 is absorbed in I'leum
- Hiatus hernia—type-1 ⟶ slides(sliding) ⟶ leads to GERD

  Type-2 ⟶ rocks and rolls ⟶ volvulus
- C'ystic D'uct leads(post surgery) ⟶ C'utaneous D'rainage

PSAMMOMA bodies

P – Papillary carcinoma of thyroid, Papillary variant of renal cell carcinoma

S – Serous cystadenoma of ovary

A – Appendicular carcinoid

M – Meningioma

M – Mesothelioma

O-s-O-mat-O-statin-O-ma

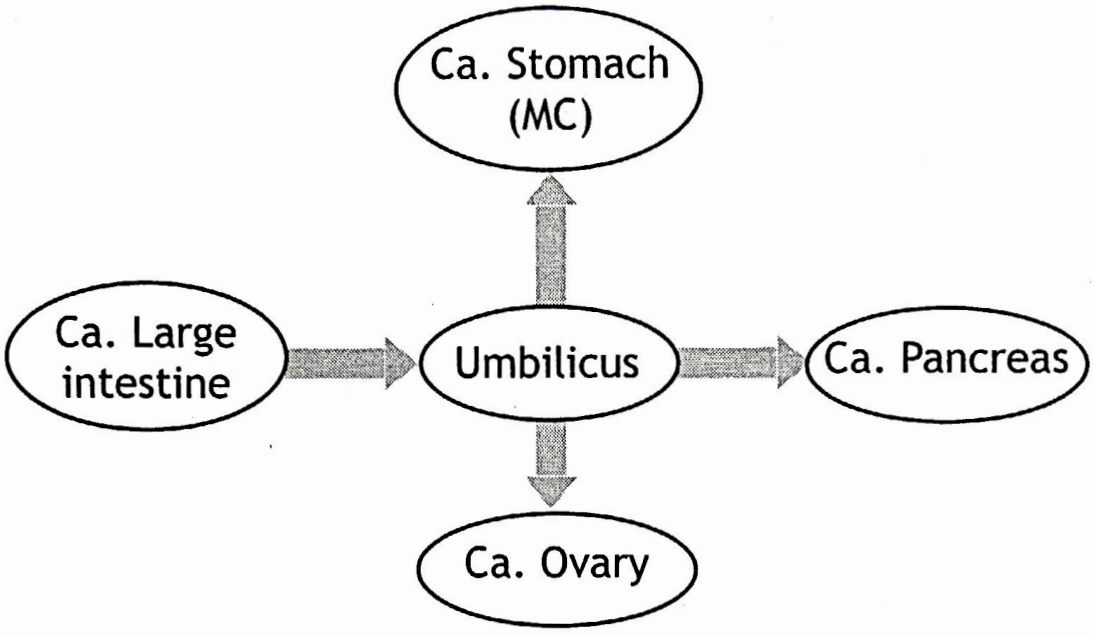
M----------

A – Adenoma of pituitary

Wol'f' graft -- 'f'ull thickness graft

'T'hiersch graft --- 'T'hin or partial thickness graft

Sister Mary Joseph nodule: 'SLOPE'



Levels

- Any bifurcation occurs at 4th level (bi'four"cation)
- Common carotid – C4 – thyroid cartilage
- Trachea – **T4** (carina)
- Descending Aorta – **L4**

– Sternal angle — T4
– Tracheal bifurcation — T4
– Arch of aorta — T4
– Thoracic duct — T5
– V-E-N-A-C-A-V-A — T8
– O-E-S-O-P-H-A-G-U-S — T10
– A-O-R-T-I-C O-P-E-N-I-N-G — T12
– C-O-E-L-I-A-C T-R-U-N-K — T12
– SMA-L1 [Superior = number one]
– Testicular, Ovarian, Renal artery — L2 [one on each side]
– IMA — L3
– Aorta bi-four-cation — L4
– IVC — L5 (V = 5)

Adrenal Glands ZZ

As you go deeper, the more it gets sweeter!

- Zona Glomerulosa (G) ⟶ Mineralocorticooids [salts]
- Zona Fasciculata (F) ⟶ Glucocorticoids [Sug ars]
- Zona Reticularis (R) ⟶ Sex [Sweetest]

PSYCHIATRIC SYNDROMES

- *Ganser syndrome is seen in gangsters
- *Cota'rds syn---nihilism..like 'Kota' Sreenivas Rao..wen his son died
- *Othello syndrome sounds greek....like Troy movie..so Infedility.
- *Fre-goli syndrome – playing goli with friends delusion in which unfamiliar persons appear familiar!
- *Declaumerault syndrome – sounds like digambara...so eroo-tomania...

Pterygoid muscles

Function of lateral vs medial

Look at how your jaw ends up when saying the first syllable of lateral and medial.

"La": your jaw is now open, so lateral opens mouth.

Me": your jaw is still closed, so medial closes the mouth

ISRO

Type **I** muscle fibres **S**low, **R**ed, **O**xidative

⟹ Oro Facio Digital syndrome is X linked dominant

i.e for gals.....kw y??

cos Lipstick, Facials n Nailpoilish r for gals!

Jus lyk cricket scores

Vit K dependent coagulation factors 279/10

Cranial nerves with both sympathetic and parasympathetic 379/10

Brachytherapy — ICICR (ICICI bank)

- Iodine 125
- Cobalt 60
- Cesium 137
- Iridium 192

RADIOLOGY

Superior rib notching

Remember S(Superior) is close to MNOPQRS

- Marfans
- Neurofibromatosis
- Osteogenesis imperfecta
- Pagets, Polio
- Q---------
- Rheumatoid arthritis
- SLE, Systemic sclerosis

Inferior rib notching

Rember I is closer to ABCDEF

- AV malformation
- BT(Blallock Taussig shunt)
- Coarctation of aorta
- Defective pulmonary valve
- E-----
- Fallots tetralogy

Langhan Cell Histiocytosis (LCH)

- Justin Langer (Australia) vs Sachin story mnemonic for LCH!
- Langer writes a Letter (Letterer-Siwe disease) to indian cricket board like this.....

- "I always wanted to become a great player and i scored double century (207==langerin 207+ protein) but i have always been dominated by Sachin who scored 100 centuries (S=100+) and has become the number one batsman (CD1a+).....so i thought i will play IPL and came to INDIA.....

  ...but i have a lesion on my femur(unifocal monostotic Esinophilic granuloma).....

  ...and my 2 yr baby couldnt adjust to the environment and developed generalised rash and eruptions(Letterer siwe disease) and couldnt survive even after chemotherapy...

  ...and i started playing again..but now wen i go to the pitch..... im unable to see the bowlers (VISUAL disturbances) and my hands (HAND) are trembling due to(LYTIC bone lesions) and im afraid leaking urine in my pants (DIABETIC INSIPIDUS) that the ball will hit my skull (SCHULLER) (erosion of pitutary stalk) affecting my eyes (EXOPHTHALMOS) (HAND SCHULLER CHRISTIAN DISEASE)

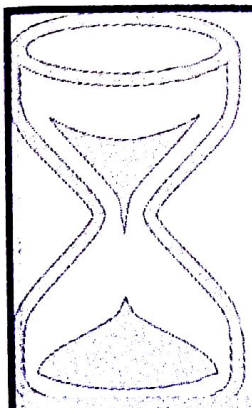
  so i was in depression drinking beer (BEER=BIRBECK granules) and quit cricket and started playing tennis (TENNIS RACQUET shaped bodies)...."

Sweet syndrome ⟶ A red cute(red vesicles) woman (MC seen) eating NEUTRINO(neutrophils increased) sweet chocolate (paraneoplastic syndrome of pancreatic cancer) with a cat and rat(yersinia infection) in her hands...

SPM Committees...funny mnemonic!

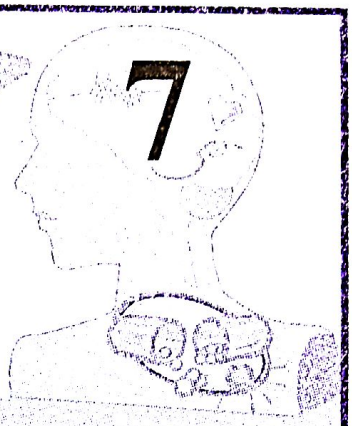
- Bhore committee --- Bhore=Bore...he 'bore'd medicos by starting 3 months of training in SPM... internship postings in(PHC)
- Mudaliar committee ---Mudaliar wanted to become ' IAS' but later opted and wrote the OBG book (constitution of all india health service on patterns of IAS)
- 'Jungal'walla committee --- took 'Junglee' decisions (common seniority, no junior senior levels, and No private practice for doctors)

- 'SHR'ivastava committee --- SHR=RHS=Rural Health Scheme=Village Health Guide
- Krishnan comiittee --- Urban revamping scheme
- Bajaj committee- --- Bajaj health university! (Like Birla BITS) (establishment of health science universities)



CHAPTER 7

CLINICAL SIGNS



- Aaron's sign → Appendicitis → Epigastric distress
- Alder's sign → Appendicitis in pregnancy → Shifting tenderness
- Cullen's sign → Ectopic pregnancy → Ecchymosis of umbilicus Hemorrhagic Pancreatitis (haemoperitoneum)
- Carnett's sign → Plane of Abdominal Swelling
- Chilaiditi's sign → Interposition of colon between liver and diaphragm
- Cope's sign (Psoas sign) → Acute appendicitis
- Cope's psoas test → Acute appendicitis
- Courvoisier's sign → Obstructive jaundice → If gall bladder is palpable it is not due to gall stones (Curvoisier's law)
- Crowe's sign → Neurofibromatosis → Axillary feckling
- DaRLymple sign → Grave's ophthalmopathy → Retraction of upper eyeLid
- Dance sign → Intussusception → Emptiness in right iliac fossa
- Echo sign → Heard over hydatid cyst → Percussion sound resembling an echo

- Ewart's sign → Pericardial effusion → Dull on percussion at lower angle of left scapula
- Fox sign → Hemorrhagic Pancreatitis → Discoloration near inguinal ligament
- Flush tank sign → Hydronephrosis
- Grey Turner sign → Hemorhagic pancreatitis → Bruising in left flank (flanks TURn Grey)
- Griffith sign → Grave's ophthalmopatly → Lower lid lag on upward gaze
- Guyon's sign → Ballottement → Floating kidney
- Homan's sign → Deep vein thrombosis of calf veins → Pain on sudden dorsiflexion of foot
- Hamilton Bailey sign → Intussusception → Sausage shaped mass
- Hitzelberger's sign → Acoustic neuroma → Anesthesia of external auditory canal due to compression of facial nerve
- Joffroy's sign → Grave's → Absence of wrinkling on forehead
- Kanavel's sign → Ulnar bursitis → Site of maximum tenderness
- Kehr sign → Splenic rupture → Pain elicited in left shoulder
- Lesar Trelat sign → Internal malignancy of GIT → Sudden appearance & rapid increase in size & number of "seborrhoeic keratosis"
- Mc. Burney's sign → Appendicitis → Tenderness over Mc.Burney point
- Murphy's sign → Cholecystitis

- Moebius sign → Grave's → Inability to keep eye balls converged
- Mose's sign → Deep vein thrombosis → Squeezing relaxed calf causes pain
- Prehn's sign → Epididymo-orchitis → Elevation & support of scrotum relieves pain(not in torsion)
- Puddle sign → Ascites → Small amount (150–500 ml)
- Pemberton's sign → Retrosternal thyroid
- Pointing sign → Appendicitis → Site of maximum pain
- Panda sign (Raccoon sign) → Trauma/fracture of floor of anterior fossa of skull (black eye)
- Argyll Robertson pupil sign → Neurosyphilis → Light reflex lost accommodation reflex retained
- Banana sign → Arnold-Chiari deformity (Hydrocepalus)
- Bird's sign → Hydatid disease of lung → Definite zone of dullness
- Boston's sign → [Von Graefis sign] → Thyrotoxicosis → Lid lag
- Bent inner tube sign → Sigmoid volvulus
- Bird of Prey sign → Barium enema → Sigmoid volvulus
- Carman's sign → [Meniscus sign] → Gastric ulcer
- Chilaiditis sign → Interposition of colon between liver and diaphragm
- Coiled spring sign → Barium enema → Intus-

susception

Colon cut off sign → Appendicular perforation
Colon cut off sign → Acute pancreatitis

- Cupola sign → Pneumoperitoneum → Gas under diaphragm
- Crow foot sign → Mercedes Benz sign, Seagull's sign → Gall stones
- Claw sign → Ileo-colic intuscesception
- Coffee bean sign → Volvulus of sigmoid colon
- Double bubble sign → Duodenal obstruction (atresia)
- Tinel's sign → Prognostic indicator of nerve recovery
- Echo sign → Percussion sound heard over hydatid cyst
- 'E' sign (Reverse 3 sign) → Coarctation of aorta (barium swallow)
- Figure of 3 Sign → Coarctation of aorta (chest x-ray)
- Frostberg's sign → Barium study → CA of head of pancreas involving duodenum
- Kanavey's sign → Acute pancreatitis (kanavel sign = Tenosynovitis)
- Hamman's sign → Pneumo mediastinitis with esophageal rupture → Precordial crunching
- Kernig's sign → Meningitis
- String sign of Kantor → Barium enema → Crohn's disease
- Lemon sign → Arnold Chiari deformity → Scalloping of frontal bones
- Oliver's sign → Tracheal tug → Aneurysm of aorta

- Omega sign → Sigmoid volulus
- Panda sign → Raccoon sign (Black eye) → Trauma, fracture of floor of the anterior fossa of skull
- Rat tail sign → Esophageal carcinoma
- Trail's sign → Sternal head of sternomastoid muscle will become prominent on the side to which trachea is deviated
- Trousseau's sign → Hypocalcemia → Carpo pedal spasm
  → CA pancreas → Migrating superficial thrombophlebitis
- Water lily sign → Hydatid cyst of the lung
- Rovsing sign → Acute appendicitis → When left iliac fossa is pressed, pain is felt in right iliac fossa
- Stellwag's sign → Grave's → Staring look
- Slip sign → Lipoma
- Suzmann's sign → Coarctation of aorta
- Von Graefe's sign → Grave's → Lagging of upper lid
- Tea pot sign → CSF rhinorrhea
- Jackson sign → Pooling of saliva in pyriform fossa in pyriform cancer fossa

ORTHOPEDICS

- Sagging rope sign → Perthe's disease
- Finger in Ballon sign → Aneurysmal bone cyst
- Brim sign → Page's disease involving pelvis
- Tripod sign → Non paralytic polio

- Sectoral sign → AVN of femoral head
- Phalen Dickson sign → Spondylolisthesis
- Ludloff sign → Lesser trochanter avulsion
- Kanavel sign → Infection of ulnar bursa
- Martorell sign → Gout
- Aneurysmal sign → TB spine
- Sulcus sign → Inferior disclocation of shoulder
- Wilson sign → Osteo chondritis sign
- Payrs sign → Meniscal sign
- Galleazi/Alli sign → CDH
- Trethovan sign → Slipped capital femoral epiphysis; Steels metaphyseal blanch sign
- Vascular sign of Narath → Posterior dislocation of hip
- Catterall sign → Leg calve perthe disease
- Hot cross bun sign → Rickets

ENT Signs

- Congenital syphilis → Hennebert sign
- Furuncle of ear → Tragal sign
- Hematoma of pinna → Cauliflower ear, wrestler's ear
- Diffuse otitis externa → Swimmer's ear, tropical ear, Singapore ear
- ASOM → Cartwheel appearance, light house sign
- Lateral sinus thrombo-phlebitis → Hectic type picket fence fever, Delta sign in CT contrast; Griesenger sign - obstruction of mastoid emissiary veins, Crowbeck sign
- Acute mastioditis → Reservoir sign

- Meniere's disease → Diplacusis, Tullio phenomenon, Metz recruitment phenomenon, Tumarken crisis (macula destruction-linear balance is lost)
- Otosclerosis → Schwartz sign (flamingo pink TM) Carhart notch
- Glomus tumor → Brown sign, rising sun appearance, Phleps sign on CECT
- Acoustic neuroma → Hitselberger sign
- Exostosis → Surfer's ear
- Chronic hypertrophic rhinitis → Mulberry turbinate
- Rhinosporidiosis → Mulberry mucosa
- Rhinophyma → Potato nose
- Rhinoscleroma → Hard woody nose Russel bodies, Mikulicz cells
- Antrochoanal polyp → Crescent sign/ Dot sign
- Frontal mucocele → Egg shell crackling
- Osteomyelitis of frontal sinus → Potts puffy tumor
- Blow out # of orbit → Tear drop appearance
- Nasal # → Pignose deformity
- CSF rhinorrhea → Halo sign, target sign,reservoir sign, double ring sign
- Adenoid cystic carcinoma → Swiss cheese pattern
- Inverted papilloma of Nose → Schnederian papilloma/ Ringert's tumor
- Nasopharyngeal Angiofibroma → Holman Miller sign/Antral sign on CT frog like facies

- Nasopharyngeal Carcinoma → Lhermitte's sign
- Quinsy → Hot potato voice
- Ludwig angina → Woody feel
- Kawasaki disease → Strawberry tongue
- Wegener's Granulomatosis → Strawberry gingiva
- Zenker's diverticulum → Boyce sign
- Laryngomalacia →
  - Curled up, omega shaped Epiglottis
  - Prominent arytenoids
  - Floppy aryepiglottic fold
- Acute epiglottitis → Thumb sign on X-ray, rising sun appearance
- Phonesthesia → Key hole appearance (both transverse and interarytenoid)
- TB larynx →
  - Pseudoedema of vocal cords
  - Mamillated arytenoids (swollen)
  - Turban epiglottis
  - Mouse nibbled ulcers

OBSTETRICS

- **Chadwick's sign/**
- **Jacquemier's sign** : Bluish hue to the vestibule and anterior vaginal wall (Jack-blue in titanic!)
- **Osiander's sign** : Pulsations in the lateral fornix (O = P)
- **Palmer's sign** : Regular rhythmic contractions in uterus → 6–8 weeks

- **Piskacek's sign** : Asymmetric growth occurs to the uterus in initial stages of pregnancy due to thelateral implantation of the blastocyst
- **Goodell sign** : Marked softening of the cervix (good and soft)
- **Von F'ernwald's sign** : Irregular softening and enlargement of the uterine F'undus F'ive (5–8 weeks)
- **Hegar sign** : An indication of pregnancy. Softening of the lower parts of the uterus enables approximation of vaginal and abdominal fingers in bimanual pelvic examination.
- **Ladin's sign** : Softening in the midline of the sterus anteriorly at the junction of the uterus andcervix (6 weeks gestation)
- **McDonald sign** → Flexible uterus=8 weeks (McDonalds = flexible price)
- **Banana sign /Lemon sign** : Ultrasound sign in open spina bifida. Shows abnormal anterior curvature of cerebellum due to the associated Arnold-Chiari malformation.
- **Blob sign** → Mass is separate from the ovary
- **Bagel sign** (Tubal ring sign) → **Ectopic** pregnancy → Gestational sac in the adnexa with hyperechoic ring. (also remember salpingitis isthmica nodosa)
- **Bishop's sign** → Abdominal ectopic pregnancy
- **Interstitial line sign** → Interstitial ectopic pregnancy

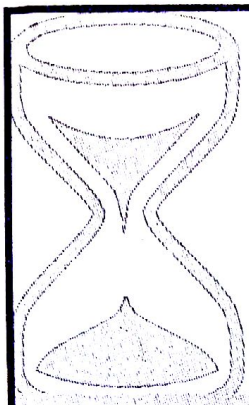
- **Danforth sign** → Shoulder pain in ruptured ectopic
- **Bathroom sign** → Blood in pouch of Douglas → in ruptured ectopic
- **Cullen sign** → Bluish discoloration of skin around umbilicus. Seen in ruptured ectopic pregnancy
- **Stallworthy's sign** → Posterior **placenta praevia** → Slowing of fetal heart rate on pressing the head down into the pelvis and prompt. Recovery on release of pressure.
- **Kustner's sign** : Sign of placental **separation.** On pushing the uterus upwards does not move the cord with it (due to the separation)
- **Schroder's sign** → Placental separation. Uterus rises up when the separated placenta ispassed downwards
- **Robert's sign** : Earliest sign of intrauterine fetal death. X-ray shows presence of gas in the fetal great vessels
- **Spalding sign** : Sign of intrauterine fetal death. Overlapping of skull bones after fetal death(USG)
- **Ball sign** : Sign of intrauterine fetal death. X-ray shows crumpled up spine of the fetus
- **Double decidual sac sign** : USG appearance of intrauterine gestational sac
- **T' sign** : USG sign seen in monochromic twins
- **Lambda sign** : USG sign seen in dichorionic pregnancies. Due to the chorionic tissue in between the two layers of the membrane between the twins

- **Stuck twin sign** : Seen in twin to twin transfusion syndrome. Due to the severe oligohydramnios smaller twin is held in a fixed position along the uterine wall. This is called stuck twin sign.

DERMATOLOGY

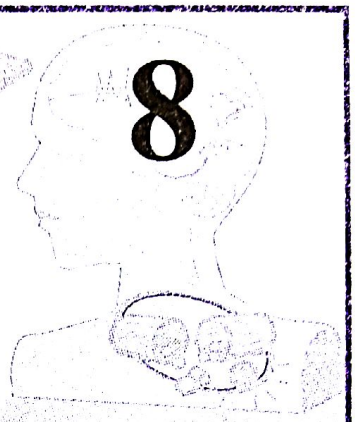
- Hunterian chancre -- primary syphilis
- Ollendorf sign -- secondary syphilis
- Moth eaten alopecia -- secondary syphilis
- Kassowitz law, Pseudoparalysis of parrot, Moons molars, Cluttons joints, sabre tibia -- Congenital syphilis
- Esthiomene, Groove sign -- LGV
- Onycholysis, oil drop sign, sub ungal hyperkeratosis, Pencil in cup deformity, Munroe microabscesses, Candle grease sign, Grattage test, Ingram regimen -- Psoriasis
- Wickhams striae, Civatte bodies, Koebners phenomenon, Band infiltrate, Pterygium -- Lichen Planus
- Christmas fir tree appearance, Herald pattern, Cigarette paper like scales, Collarette of scales -- Pityriasis rosea
- Dennie Morgan fold,Head light sign -- Atopic dermatitis
- Cradle crap -- Infantile seborrheic dermatitis
- Nikolsky sign, Asboe Hansen sign, Row of tombstones, Chicken wire appearance, Fish net appearance -- Pemphigus Vulgaris
- Dermatitis Herpetiformis -- Duhrings disease
- Orentriech sign (Tonsure alopecia) -- Trichotillomania
- Plucked chicken skin appearance, Angioid streaks -- Psudoxanthoma elasticum
- Casals necklace, Cravat -- Pellagra
- Lesar Trelat sign -- Seborrhoeic keratosis

- Nevus of O'ta -- O'cular
- Nevus of I'to -- I'ntercostal
- Stroke bite, Angels kiss -- Salmon patch
- Pautriers micro abscesses, Epidermotropism -- Mycosis fungoides
- Crowd sign, Patrick Yesudian sign -- Neurofibromatosis
- Shagreen patches, Angiomyolipoma, Periungal fibroma (Koenen tumors), Ash leaf macules -- Tuberous sclerosis



CHAPTER 8

RADIOLOGICAL SIGNS



- Accordion sign on CT--- pseudomembranous enterocolitis
- Angel wing sign or spinnakersign --- pneumomediastinum
- Angiographic string sign or carotid string sign --- Internal Carotid artery dissection
- Antral nipple sign – pyloric stenosis
- Antral pad sign--- pancreatic cancer/pancreatitis
- Apple core sign --- colorectal carcinoma
- Apple core sign --- synovial chomdromatosis of femur
- Arcuate sign --- cruciate ligament injury of knee
- Arrowhead sign --- acute appendicitis
- Banana sign --- chiari 3 malformation
- Bare orbit sign ---neurofibromatosis 1
- Bat wing 4th ventricle --- absent vermis and apposed cerebellar hemispheres
- Bat wing pulmonary opacities --- cardiogenic pulmonary edema
- Beak sign --- hypertrophic pyloric stenosis/arterial dissection
- Bird beak sign ---achalasia
- Bears paw sign ---xanthogranulomatous pyelonephritis
- Boomerang sign(MRI) --- splenium of corpus callosum/diffuse axonal injury/multiple sclerosis

- Bracket sign --- peri-callosal lipoma of brain
- Butterfly glioma --- high grade astrocytoma crossing midline
- Butterfly vertebra ---anterior spina bifida/alagille syndrome
- Ceacal bar sign --- acute appendicitis
- Celery stalk sign --- Mucoid degeneration of anterior cruciate ligament
- Cleft sign(MRI) --- meningioma
- Cluster of grapes --- hydatiform mole
- Comb sign --- hypervascular mesentry in Crohns disease
- CT Comma sign --- concomitant EDH+SDH
- Cumbo sign(Onion peel sign) --- pulmonary hydatid cyst
- Deep sulcus sign --- pneumothorax
- Dense rim sign --- high attenuation crescent sign --- Abdominal aortic aneurysm
- Double duct sign --- peri ampullary carcinoma
- Double line sign(MRI) --- osteonecrosis
- Double rim sign --- brain abscess
- Double track sign --- pyloric stenosis
- Double wall sign(Rigler sign) --- pneumoperitoneum
- Dural tail sign --- meningioma
- Empty delta sign(CECT) --- superior sagittal sinus venous thrombosis
- Finger in glove sign --- allergic bronchopulmonary aspergillosis
- Floating aorta sign --- retroperitoneal masses
- Floating head appearance --- ahondrogenesis
- Galaxy sign --- pulmonary sarcoidosis
- Garland sign(pawnbrokers sign) --- sarcoidosis

Achondroplasia → Champagne glass pelvis, Trident hand, Chevron sign, Bullet nose vertebra, Tomb stone iliac blades

Air crescent sign → Aspergilloma/Pus/Clot/Hydatid lung

Antral sign (Holman miller sign) → Juvenile nasopharyngeal angio fibroma (on CT)

Ankylosing spondylitis → Bamboo spine/Romano's sign, Squaring/Dagger sign, Syndesmophytes

Bat wing appearance → Pulmonary edema

Bed ford sign → Aorta displaced laterally due to enlarged left atrium

Blue dot sign/Nubbin sign → Cyst of morgagni [D/d of torsion testis]

Brodies abscess → Tunnelling

Bone within bone → Osteopetrosis, Sickle cell anemia

Box shape heart, Straight upper cardiac border → Ebstein Anomaly

Bone within bone, H-shaped vertebrae → Sickle cell anemia

Bouchard's/Heberden's nodes → Osteo-arthritis

Cardiac valve calcification → Endomyocardial fibrosis

Cannon ball appearance → Metastasis of lung

Central dot sign → Caroli's disease

Crazy pavement appearance → Alveolar proteinosis

Cluster of grapes → Cystic bronchiectsis pericardium

Cod fish vertebra →
- Osteoporosis
- Osteomalacia
- Hyperparathyroidism

Codman's triangle, sun ray appearance → Osteosarcoma

Corkscrew esophagus → Diffuse esophageal spasm

Continuous diaphragm sign → Air beneath heart – pneumo

Congenital syphilis →
- Saber tibia
- Moth eaten skull
- Hot cross bun skull
- Frontal bossing of parrot
- Hutchinson teeth, mulberry molars, bull's dog jaw
- Saddle nose,

Coeur-en-Sabot/Boot shaped heart
Right aortic arch
} TOF (Tetrology of Fallot)

Celery stalk appearance → Congenital rubella

Comet tail sign/ Diamond ring sign
Inverted V sign/pearl Necklace GB
} Adenomyomatosis GB

Double aortic knuckle
Double barell aorta
} Aortic dissection

Double ring sign → Osteoid Osteoma
[O–O = double ring]

Diamond ring sign,
Comet tail sign
Inverted V sign, pearl necklace GB
} Adenomyomatosis gall bladder

[Rokitansky – Aschoff Sinuses]

Egg in cup appearance/ Square root sign → Constrictive pericarditis

Egg on side appearance → D-TGA, uncorrected TGA
Waterfall appearance, convex Lt. heart border → L-TGA

E-sign, reverse of 3 sign
Dock's sign (Inferior rib notching of 3-8 ribs
} Coarctation of aorta (COA)

Egg shell calcification → Silicosis/Sarcoidosis

Erlen Meyer flask deformity of distal femur →
- Osteopetrosis
- Thalassemia
- Gaucher's disease

Fallen fragment sign, trap door sign → Unicameral bone cyst

Fish mouth vertebra →
- Sickle cell anemia
- Homocystenuria

Flowing calcifications → Diffuse idiopathic skeletal hyper osteosis (DISH)

Flowing candle wax → Sarcoidosis (ocular)

Flower bouquet appearance → Cystoid macular edema [flower bouquet in CME!]

Ground glass appearance	→	Infracardiac TAPVC
Ground glass appearance, shepherd crook deformity	→	Fibrous dysplasia
Glossy heart (speckled) on ECHO	→	Amyloidosis
Ground glass septum	→	HOCM
Gloved finger appearance	→	ABPA
Ground glass haze on HRCT	→	Alveolitis
Goose neck deformity (on LV angio)	→	Primum ASD
Great Hilar dance (On flouroscopy)	→	ASD
Golden-S sign	→	Bronchogenic carcinoma (central) + Upper lobe collapse
Hair on end/Crew-cut/ Hair brush appearance	→	Thalassemia sickle cell anemia
Hair on end/Crew cut/ Hair brush Flask shaped femur Rodent facies	}	Thalassemia
Halo appearance on CT	→	Invasive aspergillosis
Higaumenaki's sign	→	Unilateral enlargement of sternal end of clavicle due to periostitis
Jug handle appearance	→	Primary pulmonary hypertension

Left atrial enlargement	→	1st sign – Elevation of Lt. main bronchus 2nd – Widening of carina 3rd – Double cardiac shadow
Licked candy stick appearance	→	Leprosy
Light bulb appearance	→	Posterior dislocation of shoulder
Looser's zone/ milkman's pseudofractures	→	Osteomalacia
Looser's zones	→	Osteomalacia
Linear calcification of ascending aorta	→	Syphilitic aortitis
Maladie-de-Roger defect	→	Small VSD
Mercedes Benz sign/ Inverted sea gull sign	→	Ca^{+2} deposition in gall bladder
Metacarpal sign	→	Hyperparathyroidism, Turner's syndrome
Metaphyseal translucencies	→	Leukemia
Melting snow appearance	→	Mycetoma
Molten candle wax appearance	→	Leri's disease (Melorheostosis)
Money bag/water battle/ leather bottle/ flask shaped heart	→	Pericardial effusion
Osteophytes	→	Osteoarthritis
Onion peel appearance	→	Ewing's sarcoma
"O" ring sign/Popcorn calcification/Annular calcification	→	Chondromas

Left atrial enlargement	→	1st sign – Elevation of Lt. main bronchus 2nd – Widening of carina 3rd – Double cardiac shadow
Licked candy stick appearance	→	Leprosy
Light bulb appearance	→	Posterior dislocation of shoulder
Looser's zone/ milkman's pseudofractures	→	Osteomalacia
Looser's zones	→	Osteomalacia
Linear calcification of ascending aorta	→	Syphilitic aortitis
Maladie-de-Roger defect	→	Small VSD
Mercedes Benz sign/ Inverted sea gull sign	→	Ca^{+2} deposition in gall bladder
Metacarpal sign	→	Hyperparathyroidism, Turner's syndrome
Metaphyseal translucencies	→	Leukemia
Melting snow appearance	→	Mycetoma
Molten candle wax appearance	→	Leri's disease (Melorheostosis)
Money bag/water battle/ leather bottle/ flask shaped heart	→	Pericardial effusion
Osteophytes	→	Osteoarthritis
Onion peel appearance	→	Ewing's sarcoma
"O" ring sign/Popcorn calcification/Annular calcification	→	Chondromas

Rocker bottom feet	→	Edward's syndrome
Rugger Jersey spine	→	Osteo petrosis Renal osteo dystrophy
Signet ring	→	Bronchiectasis
String of beads	→	Varicold bronchiectasis
Swirl sign	→	EDH [extra dural heamorrhage]
Syndesmophytes	→	Ankylosing spondylitis
Saw toothed appearance	→	Diverticulosis colon [on barium enema]
Saw toothed ECG	→	Atrial flutter
Saw toothed epidermis	→	Lichen planus
Shepherd crook deformity	→	Fibrous dysplasia of Neck of femur
Spinnaker sail sign	→	Sail shaped thymus + air → Pneumopericardium
Spider web appearance	→	Kerley 'c' lines
Spider Nevi	→	Liver failure
Spider leg deformity	→	Polycystic kidney disease
Silhoutte sign	→	Intrathoracic radiopaque mass, causing loss of silhouette
Spring water cyst	→	Pericardial cyst
Strawberry gall bladder	→	Cholesterosis
Scimitar sign/Turkish sword appearance	→	Partial APVC > TAPVC (Congenital venolobar syn)
Schimitar sacrum	→	Anterior meningocele
Sitting duck heart	→	Persistent truncus arteriosus
Snowman sign/ Figure of 8 sign/ Cottage loaf sign	→	Supracardiac TAPVC

Swiss cheese appearance → Endometrial hyperplasia (simple)

Soap bubble appearance → Osteo clastoma

Sprengel shoulder → Klippel Feil syndrome

Spoon shaped vertebrae → Pykno dysostosis

Spondylolisthesis → Inverted Napolean hat sign
Spondylolisthesis → Beheaded Scottish terrier sign

Stag antler sign, → CHF

Swan neck deformity
Boutenniere deformity
Hammer toe
} → Rheumatoid arthritis

Hands-up sign,
Inverted moustache sign

Hurler's Syndrome (MPS-1) → Antero-inferior beating of vertebra
Hurler's Syndrome (MPS-1) → J-shaped sella
Hurler's Syndrome (MPS-1) → Simian pelvis

Thymus → Sail sign
Thymus → Wave sign of Muvley
Thymus → Notch sign

Transient tachypnea of newborn → Chest X-ray → Prominent horizontal fissure

Tram tracking → Cylindrical bronchiectasis

Trees in bud appearance → Endo bronchial spread of TB

Telephone handle bones
Clover leaf skull
} → Thanatophoric dwarf

Terry Thomas sign → Scapho lunate dislocation

Tiger eye appearance → Hallervorden – Spatz disease

Tubular heart → Emphysema

Tulip bulb aorta → Marfan's syndrome

Vanishing bile duct →
- Primary sclerosing cholangitis (PSC) Primary Biliary Cirrosis) (PBC)
- Graft versus Host disease
- Sarcoidosis
- Chlorpromazine

Vanishing ureter → Renal transplant

Vanishing tumour → Loculated interlobar fissure in CCF

Vertical striations/ Cordruoy cloth/ Paint brush appearance → Hemangioma

Water lily sign → Camalote sign → Hydatid lung

Wimberger's sign → Sclerotic rim in epiphysis

Frenkel white line → Dense Ca^{+2} deposits in metaphysic

Trumerfield zone / Pelkan spur → Lucent zone

} Scurvy

Whirl sign → Midgut volvulus (on CT)

Intracranial mass

Hyperintense + Post contrast enhancement → Cavernous hemangioma

Iso intense + Post contrast enhancement → Meningioma

Hyperintense + Post contrast intensity → Astrocytoma

Hyperintense + Cystic contrast	→	Schwannoma
Lag sign/ Drop sign	→	Supra / Infra spinatus weakness
Pipe hose appearance	→	Crohn's disease
Garden hose appearance/Pipestem colon	→	Ulcerative colitis
Signet ring sign	→	Diffuse Ca GB
Crohn's disease	→	String sign of cantor, bull's eye con target lesion, cobble stone appearance, hose pipe appearance
Ulcerative colitis	→	Lead pipe appearance / Garden hose appearance/pipe stem colon, pseudopolyps, pin point ulcers, collar button ulcers
Acute pancreatitis	→	Sentinel loop sign, colon cutoff sign, renal halo sign, ground glass appearance
[Other non-radiological signs	→	Cullen sign, Grey Turner sign, Fox sign]
Chronic pancreatitis	→	String of beads/String of pearls/ Chain of lakes appearance/ Rat tail CBD
Ca pancreas	→	Double duct sign, scrambled egg appearance, (Inverted 3 sign of Frostberg), Rose thorning of 2nd part of duodenum
Intestinal TB	→	Pulled up caecum / Inverted umbrella sign / Fleschner sign Goose mouth appearance (obtuse angle of caecum) Napkin ulcers in ileum / Purse string appearance

Ischemic colitis → Thumb printing sign

Pneumatosis iIntestinalis → Soap bubble / Bunch of grapes appearance, scalloped sigmoid

Pneumoperitoneum → Football sign/ Rigler sign/ Cupula sign/Triangle sign/ Inverted V appearance

String of beads →
- Fibromuscular dysplasia
- \+ Chain of lakes (chr. pancreatitis)
- \- Subacute intestinal obstruction

String sign of cantor → Crohn's disease

String sign → Caecal TB/Crohn's disease/ Congenital hypertrophic pyloric stenosis

Hampton's line → Benign gastric ulcer

Kirklin complex/ carman's meniscus → Malignant gastric ulcer

Bull's eye stomach → Melanoma

Trifoliate duodenum → Chronic scarred duodenal ulcer

Moulage sign → Tube bowel → Malabsorption

Hellmer's sign →
- Luscent area between liver & lateral abdominal wall
- Ascites

Stacked coin appearance → Henoch scholein purpura

Sawtoothed/serrated appearance → Colonic diverticula

Hirschsprung disease → AB normal bowel is Constricted proximal to abnormal bowel is dilated

Intussusception → X-ray → Target sign/ meniscus sign, claw sign, coiled spring appearance

USG features of Intususception → Bull's eye appearance; Dough nut sign/ pseudokidney sign; Dance sign (empty RIF)

Sigmoid volvulus → Coffee bean appearance; Bent inner tube appearance; Bird of prey appearance; Liver overlap, left flank overlap; Ace of spade appearance

Appendicitis → Rovsing sign, pointing sign, psoas sign, obturator sign, arrow head sign, Bostedes sign

Ileocaecal valve → Shark mouth appearance

Sun burst calcification/ Central stellate scar → Fibrolamellar HCC; Focal nodular hyperplasia liver; Serous cystadenoma of pancreas; Oncocytoma

UROLOGY

Bell clapper appearance, blue dot sign → Torsion testis [Nubbin sign on DMSA]

Bunch of grapes appearance → Multicystic dysplastic kidney

Bristles of brush (or) bouquet of flowers appearance → Medullary sponge kidney

Ca-renal pelvis → Stipple sign/Goblet sign (on RGP) Bergman sign (Stent coiling distal to obstruction, on RGP)

Cobra head/adder head/ Spring onion appearance → Ureterocele

Chinese lantern sign → Epididymal cysts

Drooping lily sign → Ectopic ureter

Egg in cup appearance → Renal papillary rupture

Fatty yellow kidney → Xanthgranulomatous kidney

Genito urinary TB →
- Kidney → Moth eaten calyces, bag of PUS
- Ureter → Golf hole ureter, Pipe stem ureter
- Bladder → Thimble bladder
- Epididymis → Craggy epididymis, beaded appearance, beaded vas deferens

Hand joining sign, flower vase curve of ureter, Rovsing sign, hand shake sign } Horse shoe kidney

Inverted-J appearance/ Fish hook appearance/ Shepherd crook anomaly → Retrocaval ureter

Rim/cresent sign, Soap bubble appearance → Hydronephrosis

Oncocytoma → Central stellate scar, spoke wheel appearance

- Fetal head appearance (Bladder calcification)
- Parallel calcification (or) tramtrack calcification of ureter

Pear sign/Flame sign → Bladder rupture

Pie in sky appearance	→	Injury to prostatic urethra
Star burst appearance	→	Extraperitoneal bladder rupture + all over burst
Spider leg deformity/Bell like deformity	}	Polycystic kidney disease
Bubble appearance/Swiss cheese appearance/	}	
Sun burst nephrogram	}	
Schistosomiasis On cystoscopy	→	Sandy deposits in bladder wall
Tear drop bladder	→	Extraperitoneal bladder rupture
Tobacco bag appearance	→	Tubercular salpingitis
Yo Yo reflex on RGP	→	Incomplete duplication of ureter

CHAPTER 9

CLINICAL TESTS

EPONYMOUS TESTS AND SURGERIES

Allen test	→ R/U art (Radial & Ulnar arteries)
Adson / Wright / Hallers	→ Thoracic outlet syndrome
Anderson - Heyne surgery	→ PUJO
Anton test	→ Listeria → Rabbit → Keratoconjunctivitis
Ames test	→ Chemical carcinogenesis
Bruckner test	→ Congenital ambylopia
CCK Challenge test	→ Achalasia
Dexa Challenge test	→ Adrenal insufficiency
Eijkman test	→ Coliforms
Edrophonium test	→ Myasthenia Gravis
Farnsworth Munsell – 100 (Hue) test	→ Color Vision
Fowlers-stephen/ Ombridens surgery	→ Undescended testes
Finekelstein test	→ DeQuervains disease (Tenosynovitis)
Graham Cole test	→ Oral cholecystography OCG
Grey Hack Shunt	→ Priapism (cc – cs)
Homans sign	→ DVT
Homan surgery	→ Lymphedema
Jobulay's surgery	→ Medium / Larger hydrocele

Kocher test	→	Finger insinuation test for thyroid
Lord's plication surgery	→	Small hydrocele
Lombard / Stenger test	→	Pseudohypacusis
Mantoux/Heaf/Tine test	→	Tuberculosis
Mallein test	→	B. mallei
Mohns microsurgery	→	Malignant melanoma
	→	Ca Penis
NESTROFT	→	Beta Thalassemia
Nesbitts operation	→	Priapism
Pamolo's surgery	→	Variococele
Palomos	→	Varicocele
Prehn test	→	Torsion of testes vs Epidydimoorchitis
Osmotic fragility	→	Hereditary spherocytosis
Queckenstedt test	→	CSF rhinorrhea
Ristocetin test	→	VWD (Von Will brand's disease)
Sabin Feldman Dye/ Avidity (IgG)	→	Toxoplasma
Sereny test	→	Shigella / EIEC
Seyarnes test	→	E. coli → Guinea pigs → conjunctivitis
Secretin Stimulation test	→	Zollinger Ellison Syndrome
(Ca^{+2})		
Seldinger technique	→	Femoral puncture for Angiography
Sucrose Hydrolysis test/ Ham test	→	PNH (Flow cytometry)
Snodgra's surgery	→	Hypospadiasis

Triple procedure → Ca Breast

Tourniquet test
Tinel Percution Test
Phalen test
Pen test
} Median nerve (Carpal tunnel)

Triple test → Downs + AFP + B-hcg + Estradiol

Whiff test → Bact vaginosis

Winters surgery → Priapism

5M Urea Clot test → F13 deficiency

Rectal Prolapse

Abdominal approaches → Wells / Ivavlow
Ripsteins
Orr. Lounge
Frykman Goldberg

In child → Conservative
→ Thiersch = MMC / sacral
→ Lockhart Mummery

Perineal approaches → Delormes
Thiersch
Altemeiers

Varicose Veins → Trendelenberg test
Oschner test
Fegans test
Perthes test

Treatment → Trendelenberg – JFL
Sclerotherapy
SEPS
VNUS / TRIVEX / LASER
Cockett/Body – Subfacial ligation

DVT: Homans / Moses / Pratt sign

Lymphedema

Diversion → Kondolean, Neilu Bowicz (Nodes)

Cleft Lip → Thompson, Millard, LeMusier, Tennison Randall

Hirsch sprungs disease → Swenson (C-A), Duhamel (R-R), SOAVE (submucosal), Martin modification

Limb → Swin Roll / Homans / Charles Operation

Ulcerative colitis → Kochs, Hartmann pouch

Hemorrhoids

Closed → Parks / Fergusen

Open → Milligan / Morgan

Hernia

Inguinal – Repair → Bassini, Shouldice, Halden, Lichenstein Mesh, TEP, TAPP

Umbilical → Mayos

Entropion

Involutional → Moderate → Modified Wheeler's
Involutional → Severe → Jones procedure
Cicatricial → Moderate → WEIS procedure

Ectropion

Involutional → Mild → Ziegler Cautery/
Involutional → Moderate → Bick's/Fox procedure
Involutional → Severe → Lazy T/Modified Kuhnt Szymanoswki

PTOSIS

Berke Method → lid – 2
Everbusch Blaskowitz → Mild + Moderate
Frauhman 100 hue → Color contrast
Fasanella Sarvat → Mild + Horner
Frontalis Sling → Severe + Marcus Gunn (RAPD)
Fincham test → Colored halos
Phenyl Ephrine test → Horner's syndrome
Siedel test → assess the anterior chamber leakage in cornea
Tensilon → Myasthenia Gravis

Proptosis

→ Nafzigger test
→ Hertels
→ Leudde (child)

Squint → Hirschberg test/Kappa angle

Ortho

Apley grinding test	→	Meniscal injury
Apprehension/Sulcus/ Drawer/Fulcrum/ Jobes/Dugas	→	Ant dislocation of Shoulder
Anvil test	→	Testing tenderness of spine
Adsons	→	Thoracic Outlet syndrome
Barlow / Ortolani	→	CDH
Book test	→	Ulnar nerve
Bounce test	→	Meniscal injury
Bankart's operation/Putti platt Bristow	→	Recurrent Ant. Dislocation
Coin test	→	TB of dorsal lumbar spine
Cozen test	→	Tennis elbow / Lateral epicondylitis
French osteotomy	→	Supra condylar # of Humerus (French gun)
Jerk/clunk/Jahnkes/Push pull Circumduction	→	Posterior dislocation
Klijc test	→	B/L CDH
Lift off/Belly Press/Empty can/LAG sign/Drop sign/ belly press	→	Rotator cuff
McMurray test	→	Meniscal injury
Nafziger test	→	Disc prolapse
Obers test	→	Iliotibial Band contracture
Phalen test	→	Carpal Tunnel Syndrome
Pen test	→	Median nerve

Sheindlers procedure	⟶	Pes cavus
Schoebers test (<4 cm)	⟶	Ankylosing spondylitis
Thomas test	⟶	Fixed Flexion Deformit of Hip
Thompson test	⟶	Tendoachilles

CHAPTER 10

INVESTIGATIONS OF CHOICE [IOC]

- All space occupying lesions → MRI of brain
- Acute pancreatitis → CT scan
- Acalculous cholecystitis → HIDA scan
- Acoustic Neuroma → Gd – enhanced MRI
- Anal fissure → Local examination under LA
- Aneurysm → Angiography
- Any paranasal sinus → FESS
- Amyloidosis → Abdominal fat biopsy/Rectal Biopsy + Congo red stain
- Any other condition of ear → HRCT
- Aortic dissection → Patient is stable – MRI
  Patient is unstable – TEE
- Any metastases/ Muscle/Soft tissue → MRI
- Calculous cholecystitis → USG
- Cardiotoxicity → Following CT/RT – biopsy
- Cardiac tamponade → ECHO
- Chronic subarachnoid Hemorrhage → Flair MRI
- Congenital hypertrophic pyloric stenosis → USG

- Chronic sinusitis → CT scan
- Chronic pancreatitis → ERCP
- CIN → Cytology (Pap)

- C1-C2 Jefferson's fracture → Odontoid view
- Carotid stenosis → Doppler/MR angio/CT angio
- CSF Rhinorrhea → CT scan
- Diverticulosis → Barium enema
- Diverticulitis → CT scan
- Diffuse esophageal Spasm, Achalasia and any motility disorder of esophagus → Manometry
- Down's syndrome → ECHO
- DCIS → Mammography
- Emergency in case of stable patient → FAST
- Esophageal perforation → Flexible endoscopy
- Extra adrenal pheochromocytoma → MRI
- Gastric bleed → Tc^{99} RBC scan >> Angiography
- Gastroesophageal reflux (GERD) → Gold standard–24 hr pH monitoring (Demeester score); Best – endoscopy
- Heart transplant rejection → Biopsy
- Hirschsprung disease → Rectal biopsy
- FNH of liver → Tc^{99} sulfur colloid scan
- FAP → Sigmoidoscopy
- Hydrocephalus → Infants – USG; Adults – MRI

- Head injures, Parenchymal bleeds, Subarachnoid hemorrhage } Non contrast CT
- Insulinoma → Intra operative endoscopic ultra sound (EUS)
- Intersititial Lung disease, bronchiectasis → HRCT
- Lymphangio myomatosis → HRCT
- Le Fort's fracture → CT scan
- Meningiomas → Gd-enhanced MRI
- Minimal ascites → USG
- Neuroendocrine tumours → Somatostatin receptor scintigraphy(SRS)
- Nasopharyngeal Angio fibroma → Contrast CT (Antral sign)
- Obstructive jaundice → USG
- Osteoporosis → DEXA scan
- Osteomyelitis → Bone scan (Tc^{99}+ MDP)
- Ovarian reserve → FSH
- Parathyroid glands → Sestamibi scan, Tc-thallium scan-subtraction
- Pre operative Insulinoma → Intra arterial Ca^{+2} injection angiography
- Post menopausal Uterine bleeding → Fractional curettage
- Pneumo peritoneum → X-ray abdomen in left lateral decubitus
- Pulmonary sequestration → CT Angio
- Pheochromocytoma → MIBG scan
- Pericardial effusion → ECHO
- Pericarditis → CT > MRI

- Pneumo thorax ⟶ CXR PA view with full expiration
- Pulmonary embolism ⟶ PTA (Gold standard) > Doppler > D-Dimer (screening)
- Recurrence of a tumor ⟶ PET scan
- Reticulo endothelial system ⟶ Tc^{99} sulfur colloid scan
- Recurrent GIST ⟶ PET scan
- Rhabdo myosarcoma ⟶ MRI
- Reversible myocardial Ischemia ⟶ Thallium scan
- Superior sulcus tumor ⟶ CE – MRI
- Subacute intestinal obstruction ⟶ X-ray abdomen
- Schwannomas ⟶ Gd-enhanced MRI
- Sella turcica ⟶ Lateral view of x-ray skull
- Synovial pathology ⟶ Gd-enhanced MRI
- Temporal bone ⟶ CT scan
- Traumatic paraplegia ⟶ MRI
- Thyroid & breast ⟶ FNAC
- Toxoplasmosis ⟶ IgA-ISAGA > IgM

UROLOGY

- Advanced renal TB → CECT
- Ca prostrate → DRE + PSA
  (IOC) → Trans rectal USG (Gold)
- Ca bladder → Malignant cells cytology in urine → Cystoscopy

- Early renal TB → IVP
- Functional kidney diseases (perfusion) → MAG-3 > DTPA
- Neural tube defects
  - Best → Amniotic fluid Acetyl cholinesterase
  - Next best → Amniotic fluid AFP
  - Earliest → USG (8–10 weeks)
  - Screening → Maternal serum AFP
- Polycystic kidney disease → USG
- Posterior urethral valve → MCU (VCU)
- Renal cortical mass → Tc^{99} DMSA
- Renal calculi → Non contrast CT
- Renal hypertension → Spiral CT
- Renal cell carcinoma → Vascular thrombosis – Color Doppler
- Structural kidney diseases → DMSA
- Ureteric colic & stones → Plain CT
- Vesico ureteric reflux → MCU (VCU)

CHAPTER 11

SCORING SYSTEMS

- Alavarado score, Mantrel score → Appendicitis
- Ann — Arbor staging → NHL
- Astler Coller/ Duke's → Colon cancer
- Austins → Ossicular chain reconstruction
- Amsel's/Nugents staging → Bacterial vaginosis
- Agaston score → Coronary calcium score
- Alan Partin tables → Prostate (PSA + Gleason + Staging)
- Butchart → Mesothelioma
- Briselton scoring → Newborn neurological status
- Brown's → Placenta previa
- Boyd's classification → Intermittent claudication
- Brows classification → Lymphedema
- Bruce protocol → Tread mill test
- Bent/Kuhn → Allergic fungal sinusitis
- Blatch ford score, Rockall Baylor score, Bleed criteria → Risk assesment in bleeding Gastric ulcer
- Callender → Choroidal melanoma
- Chang → Medulloblastoma
- Clark/Breslow → Melanoma

- Clarke's → Maternal mortality rate
- Cheop's → Pain grading in pediatric age group
- Cotton's → Subglottic stenosis
- Canadian cardiac society → Stable Angina
- Durie – Salmon → Myeloma
- Dukes → Infective endocarditis
- Dahlin modification of Licnenstein → Bone tumors
- Dawson criteria → Primary GI lymphomas
- Edinberg scale → Post partum depression
- Enneking → Bone tumors
- Esson and Reese Ellsworth → Retinoblastoma
- Evan's → Neuroblastoma
- Elles → Esophageal cancer
- Euroscore parsonnet → Risk-assessment cardiac surgery
- FAB → Hematological malignancy
- Forrest classification → Rebleeding in gastric ulcer
- Framing ham's → CHF
- FIGO classification → Ca cervix
- Friedrichson → Hyperlipoproteinemias
- Frykmann's → Colles fracture
- 24 hr. PH Score → Demeester score → GERD
- Lauren → Gastric Pathology
- Gharbi's classification → Hydatid cyst of liver
- Gleason score → Prostrate cancer
- Ghent criteria → Marfans syndrome

- Glasgow score, Ranson's score, Apache Score, Baltazar CT severity index, Atlanta → Pancreatitis
- Gunnman → Placenta
- Hinchey classification → Sigmoid diverticula
- Haagen → Breast cancer
- Haget's classification → To detect malignancy in colorectal polyp
- Hall's criteria → Down's syndrome
- Hess Hunt & World Federation of Neuro Surgery → SAH (Sub Arachnoid Haemorrhage)
- Huvos grading → Bone response to chemo-therapy
- Isshikas → Thyroplasty
- International Prognostic Index (IPI) → NHL
- JONES → (RF) Rheumatic Fever
- Jackson scoring → Penile carcinoma
- Jergers curves → Impedence audiometry
- KAP studies → Contraception
- Killip classification → Ventricular remodelling (prognostic)
- Lauren classification → Ca. stomach
- Maastricht → Organ Procurement
- Manning scoring → Fetal monitoring
- Mac. Callan → Trachoma
- MESS scoring → Limb salvage in shock
- Metcalfe → Risk for CVS diseases in pregnancy

- Modified Amsterdam Criteria
  Modified Bethesda Criteria } HNPCC
- Nevine system → Carcinoma GB-treatment
- Okuda score/CUPI score/ CLIP score → HCC (Pierre-Denoides staging)

Ohngren's
Ledderman's } Carcinoma of paranasal sinuses

- Page & Sher → Abruptio placenta

Park's classification
Good sal's rule } Anal fistulas

- Robson's grading → RCC

Rome-II → IBS Irritable Bowel Syndrome

- Rye's scoring → Hodgkin's lymphoma
- Rosen T-10 protocol → Chemotherapy in high grade bone tumors
- Rotterdam criteria → PCOD
- Schauffer's → Glaucoma angle
- Sokal/Hasford → CML
- Sydney modified Johnson → Chronic gastric ulcer
- Sillence → Osteogenesis imperfecta
- Spaulding → Disinfection
- Stanford's → Aortic dissection
- Strasburg-Bismuth → Bile duct injuries
- Singh's/Ahlback/Kenlgree Lawrence → OA
- Silverman Anderson scoring → Pediatric parental guidance

- Siewert classification → GE junction tumors
- TIMI score → Reperfusion in MI
- True love & witts criteria → Ulcerative colitis
- Thorsen & Termen → Caecal diverticula
- Todani modification of Alonsolez Classification → Choledochal cysts
- Vaughan-william → Anti-arrythmics
- White's → Maternal gestational DM
- Willstein's classification → Tympanoplasty
- Wagner/Grossman → Vocal cord palsy

- Child pugh classification
- MELDPELD score
- Diseased donor criteria
- Millan's criteria

} Liver transplantation

CHAPTER 12

SYNDROMES

SYNDROMES (Syn)

1. Anton's (syn)drome (cortical blindness) → Refusal to accept blindness
2. Alagille (syn)drome → Bile duct paucity + ASD + Pulmonary stenosis
3. Anderson disease → K^+ - channelopathy
4. Algrove (syn)drome → AAA – syndrome
   → Alacrimia
   a. Adrenal insufficiency
   b. Achalasia
5. Aicardi (syn)drome → Absent Corpus Callosum, retinal defects, infantile spasms
6. Alport's (syn)drome → Anti-alpha 5 of NC (collagen-IV)
   a. Sensorineural hearing loss
   b. Glomerulonephritis with gross hematuria & ESRD
   c. Lenticonus, Keratoconus
7. Asperger's (syn)drome → Autistic disorder
8. Alstorm (syn)drome → Hypogonadism, degeneration of retina, Deafness, Diabetes Mellitus, Obesity
9. Angelman syndrome → Genomic – imprinting of maternal Chr – 15, Happy puppets

10. Beckwith Wiedemann syndrome ⟶ Hemihypertrophy, macroglossia, Wilms tumour, Organomegaly, Omphalocele
11. Bardet Biedl syndrome / Eagle Barrett/Prune belly syndrome ⟶ Craniosynostosis, Radial aplasia, Renal ectopia / agenesis
12. Bardet Biedl syndrome ⟶ Obesity, Retinitis pigmentosa, Polydactyly, Hypogonadism, Renal failure
13. Biswanger disease ⟶ Subcortical vascular dementia due to white matter atrophy
14. Barter's syndrome ⟶ Defect in TAL of Loop of Henle
    a. Symptoms similar to parient on Furosemide
    b. Hypokalemia, Alkalosis, Hypercalcemia, Nephrocalcinosis
15. Best's disease ⟶ Macular dystrophy
16. Brunett syndrome ⟶ Chronic milk – Alkali syndrome
17. Bannwarth syndrome ⟶ Lyme's disease → first radicular pain, then meningeal leukocytosis
18. Brugada syndrome ⟶ Polymorphic VT, Na^+ channel disorder
19. Balint's syndrome ⟶ Occulomotor apraxia, optic ataxia, simultagnosia
20. Brown Sequard syndrome ⟶ Hemitransection of spinal cord
21. Bernard – Soullier syndrome ⟶ Platelet adhesion defect, deficient gpIb, thrombocytopenia, giant platelets

22. Brill Zinsser disease → recrudescent epidemic typhus (Ricetssia prowazekii)
23. Byler disease → Progressive familial intrahepatic cholestasis – I (PFIC-1)
24. Bloch Schullberger disease → Incontinentia pigmenti
25. Bowen's disease → Intra epidermal carcinoma in situ
26. Budd Chiari syndrome → Post hepatic venous thrombosis
27. Blount disease → Slipped capital femoral epiphysis
28. Becker disease → Autosomal recessive–chloride chamnelopathy
29. Brinton disease → Linitis plastica / Leather bottle stomach
30. Buerger's disease → TAO (Thrombo Angitis Obilerans)
31. Berger disease → IgA nephropathy
32. Burn-out syndrome → Feeling of dissatisfaction in doctor (while treating of terminally ill cancer patient)
33. Barlow syndrome → MVP – floppy valve syndrome = click valve syndrome = Tumor plop syndrome
34. Bourneville's disease → Tuberous sclerosis
35. Castleman disease → Hypersecretion of IL-6, hyper proliferation of B-cells ↑ Iglevels, associated with HHV-8
36. Charles Bonnet syndrome → Old patient with visual hallucinations with decreased, no psychosis / No delirium

37 Capgras syndrome → One person replaced by 2nd person – imposter

38. Cotards syndrome → Nihilism

39. Caroli's disease → Intrahepatic dilatation – Type V choledochal cyst, (central dot sign)

40. Claude syndrome → III nerve palsy on one side, with asynergia on other side with dysarthria

41. Cockayne's syndrome → Cock like face (Involvement of nervous system) pigmentary retinopathy, deafness, mental retardation

42. Chediak – Higashi syndrome → Defect in platelet granules, defective phagolysosome, albinism, CNS defects, defective chemotaxis

43. Cafey's disease → Mandibular osteomyelitis

44. Caffeys syndrome → Battered baby syndrome

45. Caissons disease → Decompression sickness / compressed air illness also known as Bends disease

46. Conn's disease → Primary hyperaldosteronism. Due to adrenal hyperplasia aldostrone – producing adrenal adenoma /disorders in Renin –angiotensin system

47 Carpal Tunnel syndrome → Median nerve compression

48. Carpenter's syndrome → Poly syndactyly, mental retardation, craniofacial malformations, obesity (acrocephalo poly syndactyly)

49. Cohen syndrome → Short, obese, microcephaly, mental retardation, high vaulted palate

50. Cowden syndrome → P-TEN gene mutation, multiple hamartomatous GIT polyp syndrome

51. Crouzon's disease → Cranio synostosis

52. Carney complex – → **N** Naevi

NAME syndrome **A** Atrial myxoma

M Myxoid Neurofibroma

E Endocrine overactivity

{ Pituitary +
Adrenal +
Testis + }

53. Coat's syndrome → Retinal dysplasia

54. Declermbault's syndrome → Erotomania

55. Denys – Drash syndrome → Gonadal Dysgenesis, Diffuse mesangial sclerosis, Wilms tumour

56. Darling's disease → Ohio-Valley disease – Pumonary histoplasmosis, Ocular histoplasmosis, sinusitis

57. Dents disease → Cause of Fanconi syndrome, Proteinuria, hypercalcuria nephrocalcinosis, nephrolithiasis

58. Del Castilo disease → Sertoti cell-only syndrome, No sperms (castrated)

59. Diamond Black Fan syndrome → Congenital PRCA (Pure Red Cell Aplasia)

60. Diamond Schwanbach syndrome → Neutropenia, metaphyseal dysplasia, pancreatic insufficiency

61. DIDMOAD disease → DI – Diabetes inspidus
DM – Diabetes mellitus
OA – Optic atrophy
D – Deafness

62. Duane syndrome → DU–Dual vision–Diplopia
AN – Abducent Nucleus defects

63. Diege Potter syndrome → HGH secreting fibroma – frontal disinhibition

64. Dupuytren disease → Palmar fibromatosis

65. Dhat syndrome → Premature ejaculation
Patient believes that he is passing semen in urine

66. Dieulfoy disease → Large tortuous arteriole in submucosa of stomach which erodes and bleeds, causing massive upper GI bleeding

67. Dowling Degos disease → Autosomal dominant, reticular pigmentation + palmar pitting

68. Democles syndrome → Fear of relapse of cancer

69. Devics disease → Neuromyelitis optica → Bilateral optic neuritis + Transverse myelitis

70. Degerine – Roussy syndrome → Hemiparesthesia/dysasthesia following thalamic stroke

71. Degerine – Sotta syndrome → Charcot Marie tooth disease Type – III

72. Dressler syndrome → Chronic pericarditis following MI (autoimmune)

73. Evan's syndrome → Warm (IgG) Autoimmune Hemolytic Anemia + ITP

74. Ekbom syndrome → Restless leg syndrome

75. Eosinophilia – myalgia syndrome → L-tryptophan (defective L-tryptophan ingestion) flu like neurological condition, eosiophilia

76. Fregoli syndrome → Stranger is felt as familiar person

77. Foville's syndrome → 7^{th} nerve + 6^{th} nerve palsy + contralateral hemiparesis, hemisensory loss

78. Forrestier syndrome → Ankylosing hyperostosis, DISH (Diffuse Idiopathic Skeletal Hyperostosis)

79. Frohlich syndrome → Obesity, growth retardation, gonadal hypoplasia, visual disturbances

80. Frey's syndrome → Gustatory sweating

81. Froin syndrome → Xanthochromia

82. Frasier syndrome → Gonadal dysgenesis + Renal dysfunction

83. Fanconi's syndrome → Renal tubular acidosis. Type II (Proximal convoluted tubule)

84. Fanconi's anemia → Defect in post replication DNA repair, Aplastic anemia, absent radius, increased risk of myelodysplastic syndrome & AML

85. Gorlin's syndrome → PTCH gene → Nevoid basal cell carcinoma

86. Gerstmann syndrome → Dysgraphia / Agraphia + Dyscalculia / Acalculia + Finger agnosia + Left Right disorientation

87. Grey Platelet syndrome → Platelets with no granules (Ghost platelets)

88. Gi-T-elman syndrome → Defect in Na^+Cl^- transporter in DCT, effects like that of T-hiazide diuretics.

89. Gilliespie syndrome → Autosomal recessive, pigmentary retinopathy

90. Guyon canal syndrome → Ulnar nerve compression

91. Gais – Bock syndrome → Stress – relative polycythemia

92. Gardner syndrome → Seen in prison inmates (gangsters) as an attempt to gain leniency from prison

93. Gorham syndrome → Vanishing bone disease

94. Gardner syndrome → Polyps + Osteomas + Epi dermoid cysts + Lipomas + Periampullary carcinoma

95. Gull's disease → Myxedema

96. Grawitz tumour → Renal cell carcinoma

97. Goldenhar syndrome → Limbal dermoids + Pre auricular tags + eye lid deformation

98. Haw River syndrome → Dentato Rubro Pallido Luysian Atrophy, Atrophin gene (Spino cerebellar ataxia)

99. Heriditary Branchial Neuritis → SEPT 9 gene on Chr.17. syndrome Bilateral shoulder pain due to neuritis

100. Hinman syndrome → Most severe form of dysfunctional voiding

101. Holiday Heart syndrome → Alcoholic cardiomyopathy with atrial fibrillation, atrial flutter, ventricular premature contractions

102. Holt Oram syndrome → ASD + Right sided limb abnormalities

103. Hypogonadism due to → GnRH resistant ovary + (Savage syndrome) hypothalamic causes (Kallman syndrome)
   (i) Hypopituitarism – Simmonds / Chiari Frommet syndrome
104. Hayde's syndrome → Aortic stenosis + Angio dysplasia of gastric mucosa
105. Hallervorden Spatz disease (HSD) → Autosomal recessive, PANK 2 gene, Dementia, Globus pallidus degeneration (extra pyramidal symptom), Eye of tiger appearance
106. Hamman Rich syndrome → Acute interstitial pneumonia
107. Heerfordt's syndrome → Sarcoidosis
   a. Facial paralysis
   b. Parotitis
   c. Uveitis
108. Irvine gass syndrome → After cataract [following ECCE]
109. Issac syndrome → Neuromyotonia (paraneoplastic syndrome)
110. John syndrome → Juvenile (myoclonic) epilepsy
111. Job syndrome → same as Wiskott – (Aldrich) syndrome hyper IgE syndrome → Eczema + Infection + Immuno compromised state = cold abscesses and furuncles
112. Jansen syndrome → Dwarfism + Ca^{2+} metabolic

113. Kennedy syndrome → Spinobulbar muscular atrophy
Mutation in Androgen Receptor (AR) gene

114. Kartagener syndrome → Ciliary dysmotility
i. S - Sinusitis
ii. B - Bronchiectasis
iii. I - Inversus situs

115. Kasabach – Merrit syndrome → Giant hemangiomas, localized Intravascular coagulation, thrombocytopenia, microfibrinogenemia

116. Kearns Sayre syndrome → Chronic progressive external ophthalmophagia (CPEO), heart blocks, Retinitis pigmentosa

117. Kluver Bucy syndrome → Amygdala lesions → hyperphagia, hypersexuality

118. Kikuchi disease → Histiocytic necrotising lymphadenitis

119. Kimura disease → Painless unilateral inflammation of cervical lymphnodes (on subdermal lesions in head and neck)

120. Klippel Trenaunay syndrome → Portwine stains, excess growth of bones and soft tissues, varicose veins

121. Klippel Feil syndrome → Fused cervical vertebrae
short neck decreased neck movements low hairline

122. Kallman syndrome → Decreased GnRH → hypogonadism, micropenis, involvement of olfactory bulb → Anosmia mutations in KAL gene / FGFR gene

123. Kostmann syndrome → Congenital neutropenia

124. Korsakoff Mayer syndrome → Polyarteritis nodosa (PAN)

125. Kleine Levin syndrome → Hypersomnolence, hyperphagia, apathy, hypersexuality

126. Keshan syndrome → Dietary deficiency of Selenium & presence of mutated strain of coxsackie virus – congestive cardiomyopathy

127. Lawrence Moon Biedel syndrome → Mental retardation
Obesity
Hypogonadism

128. Lambert Eaton Myaesthenic syndrome (LEMS) → Autoantibodies against presynaptic Ca^{+2}channels in NMJ.
   i. 60% cases syndrome (LEMS) paraneoplastic
   ii. proximal muscle weakness, weakness of Bulbar muscles

129. Lhermitte Duclos syndrome → Purkingeoma of Cerebellum

130. Lennox Gastaut syndrome → Multiple seizures
Slow spike EEG (< 3 hz)
Psychomotor development & Behavioral disorders

131. Lowe's disease → Oculo cerebro renal syndrome
Normal gap metabolic acidosis

132. Leventhal Steil syndrome → PCOD

133. Lutembacher syndrome → ASD (congential) + Mitral stenosis(acquired)

134. Loefler's syndrome ⟶ Visceral / Cutaneous larva migrans

135. Lyme's disease ⟶ Tick borne disease due to Borrelia burgdorferi, Bull's eye rash, erythema migrans, Borrelial lymphocytoma

Neurological: Headache, Meningitis, Encephalitis

136. Leigh syndrome ⟶ Mutations in mitochondrial DNA Subacute Necrotising Encephalo Myelopathy (SNEM)

137. Leiner disease ⟶ Seborrheic dermatitis, diarrhoea,

i. Failure to thrive (Infantile dermatitis)

138. Leopard syndrome ⟶ L → Lentigenes

E → Ecg abnormalities – Bundle Branch Block

O → Ocular hypertelorism

P → Pulmonary stenosis

A → Abnormal genitalia (cryptorchidism)

R → Retarded growth

D → Deafness (Sensorineural)

139. Laron syndrome ⟶ GH receptor resistance (GH – Growth Hormone)

140. Lemierre's disease ⟶ Fusobacter,
Sore throat, swollen painful neck (cervical lymphadenopathy), lung abscess, pleuritic chest pain, arthralgia / arthritis

141. Lucey – Driscol (syndrome) ⟶ Transient familial neonatal Hyperbilirubinemia

142. Ledderhose syndrome → Plantar fibromatosis

143. Loefler's Cardiomyopathy → Eosinophilic cardiomyopathy

144. LAMB syndrome →
L → Lentigenes
A → Atrial myxoma
M → Myxomas (muco cutaneous)
B → Blue Nevi

145. Leri's dieases → Melorheosteosis

146. Lynch syndrome → HNPCC

147. Lown Ganong Levine syndrome → Similar to WPW syndrome, (AV nodal reentant tachycardia)
Short P-R interval,
But – Normal QRS complex
Absent delta waves

148. Lermoyez syndrome → Variant of Meniere's disease
Deafness followed by Vertigo, followed by Tinnitus

149. Louis Bar syndrome → Ataxia Telangectasia

150. Lou Gehrig's disease → Amyotrophic Lateral sclerosis (ALS)

151. Machado Joseph disease → Spinocerebellar ataxia – 3 (SCA – 3) Ataxin gene

152. Marion's disease → Muscular hypertrophy and Stenosis of bladder neck

153. Miller Fischer syndrome → Variant of Guillian Barre syndrome
Triad of Ataxia, Areflexia & Ophthalmoplegia

154. Millard Gubler syndrome → Ventral Pontine syndrome
Infra nuclear palsy of VI & VII Cranial nerves & Disruption of corticospinal tract "crossed hemiplegia"

155. Munchaussen syndrome ⟶ Factitious → Washboard abdomen
Professional patient syndrome

156. Meig's syndrome ⟶ Ovarian tumor / Fibroma + Ascites + Pleural effusion (Rt)

157. Meige syndrome or Brueghel syndrome ⟶ Oromandibular dystonia, blepharospasm

158. Mandelson's syndrome ⟶ Aspiration pneumonitis

159. Menke's Kinky Hair syndrome ⟶ Ehler Danlos syndrome – Type 9 affects copper levels in body leading to copper deficiency

160. Meckel Gruber syndrome ⟶ Renal cystic dysplasia + CNS + Polydactyly + Pulmonary (hypoplasia)

161. Maza Braud syndrome ⟶ Polyostotic fibrous dysplasia (FD) Soft myxomas

162. Mallory Weiss syndrome ⟶ due to Binge drinking.
Tear at Cardia → Squamo columnar junction

163. Mauriac syndrome ⟶ Poorly controlled diabetes mellitus in children in children with hepatomegaly + cushingoid habitus

164. Menetrier's disease ⟶ Hyperrugosity of gastric folds,
Increased mucous secreting cells,
Hypoproteinemia → Edema
Parietal cells replaced by mucus secreting cells, so hypochlorhydria / Achlorhydria

165. Meniere's disease ⟶ Tinnitus → Vertigo → Deafness

166. Mirizzi syndrome ⟶ Stone in Hartmann pouch of gall bladder

167. Melkersson Rosenthal syndrome → Recurrent facial nerve paralysis + Fissured tongue + Fissured lips

168. Micheal's aplasia → Cochlear turn → Only 1/3rd

169. Mondor's disease → Superficial thrombophlebitis of chest / Breast / Abdomen

170. Monge's disease → Chronic mountain sickness

171. Mayer – Rokitansky Kuster Hauser syndrome → No Mullerian duct, so no uterus, no fallopian tube

172. Mikulicz disease → Sjogren's syndrome (Keratoconjunctivitis sicca)

173. McCune Albright syndrome → Polyostotic fibrous dysplasia, Unilateral Café-au-Lait spots, Precocious puberty

174. Mounier Kuhn disease → Idiopathic bronchiectasis

175. McLeod syndrome → Unilateral hyperlucent pleural effusion

176. Noonan syndrome → Male variant of Turner's syndrome + Pulmonary stenosis + Mental retardation

177. Nut Cracker syndrome → Beaded Lt-ureter due to kinking of Lt. Renal vein between aorta and superior mesenteric artery

178. Nelson syndrome → Rapidly enlarging ACTH-producing pituitary adenoma following bilateral adrenalectomy

179. Nail Patella syndrome → (Hood syndrome) Small poorly developed nails, hypoplastic patella, multiple bony exostosis

180. Naxos disease → Arrhythmogenic right ventricular cardiomyopathy, hyperkeratosis, wooly hair

181. Nezelof syndrome → Thymic dysplasia → Immunosuppresion

182. Ormond's syndrome → Idiopathic retroperitoneal fibrosis

183. Ogilive's syndrome → Idiopathic/ Pseudo subacute intestinal obstruction

184. Ortner's syndrome → RLN palsy due to dysphagia lusoria

185. Ollier's disease → Multiple enchondromas

186. Othello's syndrome → Delusional jealous about spouse (infedility)

187. Osler Weber Rendu disease → Heriditary Hemorrhagic Telangiectasia

188. Prader Willi syndrome → Genomic imprinting due to deletion of paternalchromosome → 15

Short stature, hyperphagia, obesity, mental retardation, sleep disorders

189. Potter's syndrome → Bilateral renal agenesis + Facial abnormalities

190. Parinaud's syndrome →
P – Posterior commisure (Dorsal midbrain)
A – Aqueductal stenosis
R – Retracted eyelids
I – Ischemia (CVA)
N – Nystagmus on convergence
AU – Absent upgaze
D – Downward eye gaze / dorsal midbrain

191. Progressive Supranuclear palsy (PSP) → Steel Richardson Olezewski syndrome

Frequent falls

Vertical supranuclear gaze palsy

192. Pearson syndrome ⟶ Bone marrow failure
Pancreatic fibrosis (Exocrine pancreatic insufficiency insulin dependent Diabetes mellitus

193. Posner Schlossman syndrome ⟶ Glaucomato cyclitic crisis

194. Peyronie's disease ⟶ Penile fibromatosis

195. Poland syndrome ⟶ Congenital absent pectoralis major

196. Pendred syndrome ⟶ B/L SNHL + Thyroid dysfunction

197. Crow Fukase syndrome ⟶ POEMS syndrome
P - Polyneuropathy
O - Organomegaly
E - Endocrinopathy
M - Multiple myeloma
S - Skin changes (hyperpigmentation, hyperachosis)

198. Pierre Robins syndrome ⟶ Retrognathia + Cleft palate + Mental retardation

199. Post cardiac injury syndrome ⟶ Following trauma

200. Pick's disease ⟶ Fronto temporal dementia

201. Rosai Dorfmann syndrome ⟶ Sinus histiocytosis with massive lymphadenopathy and autoimmune hemolytic anemia

202. Refsum's disease ⟶ Accumulation of phytanic acid, Ataxia, peripheral neuropathy, deafness, cataracts

203. Rothmund syndrome ⟶ Osteosarcoma +

204. Runt disease → Graft v/s Host disease (in animals)

205. Riley Day syndrome → Familial dysautonomia Heriditary sensory autonomic neuropathy Type III (HSAN – III)

206. Rochon Duvigneaud syndrome → Superior Orbital Fissure syndrome (palsy of III, IV, V, VI cranial nerves)

207. Rett's disease → X linked dominant, Reversal of milestones, loss of skills

208. Ramsay Hunt syndrome → Herpes Zoster infection (reactivation) Facial nerve palsy + Vesicular rash in external auditory canal

209. Robertson syndrome → Metabolic syndrome Hypertension, Hyperglycemia, Hypercholesterolemia syndrome (partial)

210. Reader's syndrome → Cluster headache

211. Rose Gardner's disease → Sporotrichosis

212. Reifenstein syndrome → Androgen insensitivity

213. Steele Richardson Olszewski syndrome → Progressive supranuclear palsy

214. Stokes Adams syndrome → Syncopal attacks due to asystole, heartblocks and ventricular fibrillation

215. Stills disease → Juvenile idiopathic arthritis + Anterior uveitis

216. Swift's disease → Acrodynia / Pink disease

217. Sunset syndrome → Subluxation of IOL following cataract surgery

218. Stewart Treeves syndrome → Ca'Breast → Lymphedema → Lymphosarcoma

219. Stachart syndrome → Dermatitis +

220. Schimdt syndrome → Polyglandular autoimmune syndrome (on Autoimmune polyendocrine syndrome Type II)

221. Sheehan syndrome → Pitutary apoplexy in puerperium

222. Stauffer syndrome → Paraneoplastic syndrome in RCC, abnormal liver enzymes with no liver abnormality

223. Stickler syndrome → Connective tissue disorder affecting collagen. Features of Pierre Robin syndrome are seen, along with ocular hypertension, cataracts, deafness

224. Stiffman syndrome → Paraneoplastic syndrome in Ca-breast, Ca -stomach

225. Stiff baby syndrome → Hypertonia in infant

226. Sweet syndrome → Paraneoplastic syndrome in Ca-pancreas (neutrophilic dermatitis)

227. Savage syndrome → GnRH resistant ovary

228. Simmonds Chiari Frommet syndrome → Hypopituitarism

229. Smith Lerril Opilz syndrome → Adrenal insufficiency

230. Senior Loken syndrome → Juvenile nephronophthisis + retinitis pigmentosa

231. Scimitar syndrome → TAPVC / PAPVC + Dextrocardia + Hypoplasia of right lung

232. Sezary syndrome → Erythroderma in mycosis fungoides (CTCL)

233. Shoulder hand syndrome → Complex Regional Pain syndromes (CRPS)

234. Straight back syndrome → Loss of curvature of spine + Mitral valveprolapse

235. Swyer syndrome → XY genotype with
female external genitalia
no testes
No mullerian inhibiting factor
No testosterone
No estrogen

236. Sampter's disease → Central visual field defects in children

237. Shy Drager syndrome → Parkinsons disease with multiple system atrophy

238. Tourette syndrome → Coprolalia (Obscene utterings)

239. Terson syndrome → Vitreous hemorrhage + Subarachnoid hemorrhage

240. Tarsal tunnel syndrome → Autosomal dominant Chloride channelopathy

241. Turcot's syndrome → Polyps (colon) + Brain tumours (Optic nerve gliomas / Glioblastoma multiforme)

242. Trotter traid **3F's** → Fixation of ossicles (conductive hearing loss)
Fixed soft palate
Facial pain

243. Tr**ea**cher **Co**llin syndrome → Mandibulo facial dysgenesis (absent cheek bones, micrognathia)
Malformed / Absent **Ea**rs
Conductive hearing loss
Coloboma of lower lid

244. Tako Tsubo cardiomyopathy → Stress cardiomyopathy

245. Tullio's crisis → Drop attacks (vertigo on loud sounds) in Meniere's disease

246. Tumarken crisis → Loss of linear motion in Meniere's disease
Sudden falls – indicates severity

247. Trosseau syndrome → Severe unilateral headache with painful ophthalmoplegia

248. Usher's syndrome → SNHL + Retinitis pigmentosa (Sensori Neural Hearing Loss)

249. UGH syndrome → Uveitis – Glaucoma – Hyphema

250. Vander Woude syndrome → Autosomal dominant
Cleft lip, cleft palate
Pits & mucous cysts on lower lip
Absent 2nd premolars
Bifid uvula

251. Von Gogh disease → Self mutilating type of Schizophrenia

252. Vander Hoove syndrome → Osteogenesis imperfecta
Otosclerosis
Blue sclera

253. Verner Morrison syndrome → VIP – oma (somatostatinoma)

254. Vanishing Bile Duct syndrome → Transplant
idiopathic
sarcoidosis

255. Vanishing testis syndrome → Bilateral anorchia

256. Vanishing twin → Fetus papyraceus

257. Weaver syndrome → Growth retardation, facial defects, Omphalocele

258. Webers syndrome → Contralateral hemiparesis
Ipsilateral ophthalmoplegia (III CN)

259. Wallenberg syndrome → Lateral medullary syndrome
1. Infarction of "PICA"
2. Loss of sensations in opposite side of trunk, same side of face

260. Wolman's disease → Lipid storage disease
1. Lipa gene +
2. Bilateral adrenal calcification

261. William's disease → Chr. 7, mutation in elastin gene Elfine facies

262. Wilson's disease → ATP – 7B deficiency
Deficiency in copper transport (Hepato-Lenticular degeneration)

263. Werdnig Hofman disease → Spino muscular atrophy – I (LMN)

264. Wohlfart Kugelberg Welander syndrome → Spino muscular atrophy – III Juvenile

265. Wolf Parkinson White syndrome → Accessory conducting pathway between atria and ventricles.

266. Wiscott Aldrich syndrome → Wiskhot → Fever Aldritch → Eczema → ↑ IgE levels

267. West's syndrome → Infantile spasms
Mental retardation
Hypsarrhythmia

268. Weil Marchesani syndrome → Inferior subluxation of Lens

269. Waterhouse-Friderichsen syndrome → In meningococcemia
Acute fulminating adrenal insufficiency

270. Witzel sucht syndrome → Pathological joking in frontal lobe affection

271. Young's syndrome → Sinusitis, Nasal polyps, Bronchiectasis, Azoospermia

CHAPTER 13

NUGGETS



CHAPTER OUTLINE

(a) Pathology	(b) Forensic Medicine	(c) Pharmacology
(d) Anesthesia	(e) Microbiology	(f) SPM
(g) Orthopedics	(h) Ophthalmology	(i) Respiratory System
(j) Endocrinology	(k) Scientists	(l) Paediatrics

ANESTHESIA NUGGETS

- O_2 = 'O'ld movies are black and white [oxygen cylinder]
- MC size of O_2 cylinder used is E [E=Emergency]
- Surest sign of intubation ⟶ Capnography
- Mcc of hypoxia is due to V/Q mismatch
- Minimal Alveolar Concentration = Potency = **MAC Power**

DNS In Emergency Saved HEMA [DNS IE HEM]

Desflurane	N_2O (highest = 104)
Sevoflurane	**Isoflurane**
Enflurane	**Halothane**
Ethane	**Methoxyflurane**

Pi indexes

Interpret according to our life:

We need air = **Air (1, 5)**, then Oxygen [2, 5], then we need N_2O for anesthesia [3, 5]

Next useful is CO_2 [2, 6], then Cyclopropane [3, 6] and lastly E-N-T-O-N-O-X[7]

Color Coding

1. Old movies [O = Oxygen] are **Black and White**
2. We laugh a lot, we become **blue** [N_2O = laughing gas]
3. We inhale more CO_2, we become **grey** [CO_2 = grey]
4. Air = O_2 + CO_2 ⟶ Grey body + B/W shoulders
5. Cyclop **ROP** are ⟶ **OR** ange
6. ENTONOX ⟶ CO_2 + O_2 + N_2O ⟶ Grey + Blue + B/W Shoulders

N_2O

Keep a cylinder in your room to stay happy: because

- Room temperature = 36.5°C = liquid state
- No color ⟶ Colorless
- No irritation
- No bad odor ⟶ Sweet smell
- Keeps you laughing ⟶ Laughing gas
- Keeps you happy ⟶ Laugh till you get blue
- No effect on our body ⟶ Not metabolized
- No risk of explosion ⟶ Non inflammable
- Laugh till you become blue ⟶ Cyanosis [methemoglobin] Blue cylinder
- Gives you company ⟶ Second gas effect
- Relieves you pain ⟶ Good analgesic
- Don't keep the cylinder in closed spaces ⟶ "Blue Bloaters"

1. Pneumothorax
2. Pneumoperitoneum
3. Pneumocephalus
4. Ear cavities
5. Microlaryngeal Surgeries

Halothane

H ⟶ High MAC [Low potency in popularly used]
A ⟶ Asthmatics [DOC]
L ⟶ Long acting
O ⟶ Obese = max fat gas coefficient
T ⟶ Trifluroacetic acid is the metabolite
H ⟶ Halothane Hepatitis
A ⟶ Adrenaline Sensitiser/Autoimmune Hepatitis
N ⟶ Non inflammable
E ⟶ Erodes [Corroses]

Isoflurane: Iso to all [No change]

Iso ⟶ BP ⟶ deliberate hypotension
Iso ⟶ Cardiac Output [DOC ⟶ Cardiac patients]
Iso ⟶ Intra Cranial Hypertension [DOC ⟶ Neurosurgery]
Iso ⟶ Hepatic blood flow
Iso ⟶ Placental blood flow [DOC ⟶ Obstetrics]
Iso ⟶ EEG
Iso ⟶ 'Ice'cream is 'Stolen[Steal = Coronary steal] phenomenon

Desflurane

Is like a **Desi** girl [Sorry!]

- It irritates
- It is easy to flirt [easy and fast induction]
- Very fast [fastest induction]
- Evaporates [high vapour pressure], so you need a special gift [Tec-6 special vapourizer]
- No gifts, no relation [day care!]
- Becomes red [carbon monoxide] when angry, don't give soda!
- Come and Go ⟶ Minimum metabolism

- Compatible for [DOC] ⟶ Minimum hepatotoxicity
  ⟶ Minimum nephrotoxic
  1. Old persons
  2. Liver patients
  3. Renal patients
  4. Obese patients
- When present for (>6 hrs) ⟶ Irritate the heart! [>6% Sympathomimetic] and give you shock [DOC in shock when >6%]

Sevoflurane

Smoothest ⟶ Pediatric induction [DOC]

Safe in renal ⟶ Rapid excretion of fluoride

Sodalime ⟶ A S H [A = Compound A]
H = HF = Burns

Seizures

Enflurane

Ethereal product

Explosive

* Epileptogenic

Extreme decrease in CO/Respiration/GFR

Extreme increase in ICT

↳ **Cyclopropane:** is like a 'cycle' tyre
⟶ Bursts and punctures
⟶ Max inflammable property and gives you shock [DOC for shock] and tyre gets deflated [hypotension on emergence!]

↳ **Trilene:** says Tri me for Pain [Best analgesic]
[1 + 2 = 3] Tri has 'Di'chloro ⟶ Trigeminal toxicity Acetylene
Tri has Mono Phosgene ⟶ 'P'ulmonary = ARDS

Methoxyflurane

Meetha [sweet] [Non irritant, Non inflammable]

Most potent [least MAC]

Most nephrotoxic [flourides]

Most soluble in rubber

Maximum muscle relaxation

Myocardial sensitizer [to adrenaline]

Maximum urine output [high output renal tubule damage]

Stages of Anesthesia: A B C D E F G

Analgesia

Stage 1 ↓

Brain sleeps

Stage 2 ↓

[Consciousness lost]

↓

Deep rythmical respiration

Stage 3 ↓ Plane-1

Eye movements stop

↓ Plane-2

Failure of respiration starts [paresis]

↓ Plane-3

Failure complete

↓ Plane-4

Diaphragmmatic paralysis

Stage 4 ↓

Global Paralysis [Medulla]

Anesthetics Sensitising Myocardium to Adrenaline

HCC METastases!

Halothane

Cyclopropane

Chloroform

Methoxyflorane

Enflurane

Trilene

- **Thiopentone:** Thio is thyroid antagonist
  Pento is penta ['5'mg / 2.5%]h
  Penta [causes mess] in shock/MI/Asthma
- **Methohexitone:** (1) is used for Mental patients [ECT]
  (2) causes Myoclonus
- **Propofol:** is milky white
  - Michael Jackson used it
  - 2% white solution in oil
  - 2 ml xylocaine given
  - 2 (2-8 min effect)
  - 2 hrs (half life)
  - 2 mg/kg
  - Michael Jackson had overdose!

→ Apnea
→ Hypotension
} Cardiorespiratory failure

→ had hallucinations/Sexual fantasies

→ he used Daily [Day Care Surgery]

Ketamaine

K ⟶ Kids
E ⟶ Emergence delirium
T ⟶ Thalamo cortical dissociation
A ⟶ Asthmatics/Analgesia [max]
M ⟶ Meals [good for full stomach Pts]
I ⟶ Increases everything/Everywhere
N ⟶ NMDA antagonist [like pheneyclidine]
E ⟶ Excellent for Emergency

Etomidate: is very good at heart but sucks adrenals!

- most cardiostable
- Adrenal insufficiency

Succinylcholine

- "Succinyl" Sucks! everywhere [**increases** everything]
- **Shortest muscle relaxant**
- **D**osa is most potent food [Doxa = Dosa = **Doxacurium**] [very potent and non-metabolised]
- **Pancuronium** is best used in **Panic** [Shock]
- **V**ecuronium is **V**ery stable for heart CVS
- **Rocuronium Rocks** the heart Continuously [DOC for continuous infusions in ICU]
- **Rapacuronium** causes the Rapper [Singer = Rap] to stop singing [intense bronchospasm]
- **Miva** is like **Viva** (Very short acting)

Opioids: SACRUM

- Sedation
- Analgesia
- Constipation
- Respiratory depression
- Urine retention
- Miosis

- all agonists act at 'μ' [Stimulate; mu']
- all antagonists at 'μ' [inhibit mu]
- agonist antagonist stimulate Kappa/Sigma inhibit 'mu'
- Biphasic respiratory depression ⟶ Fentanyl
  Delayed respiratory depression ⟶ Morphine
  Maximum respiratory depression ⟶ Sufentanyl
  Max convulsions ⟶ Pethidine
  Max rigidity ⟶ Alfentanyl
- Ceiling to respiratory depression = B, C, D
  Buprenorphine
  Ceiling
  Dezocine
- Alfentanyl causes wooden chest syndrome through **mu** (**mu**scle) receptors.
- '**Su**'fentanyl is **super** opioid = 'Su'per (Most potent)
- **Rem**ifentanyl is Romeo Romantic = uses GPRS phone
  - G - **G**lycine
  - P - **P**seudo cholinesterase
  - R - **R**enal patients [DOC]
  - S - **S**hortest [Day care]

ANESTHESIA-Most common

- Complication is nausea and vomiting
- Second most common is resp-depression
- Preventable complication is aspiration
- Cause of hypoxia is tongue fall(genioglossus)
- Feature of hypoxia is V/Q mismatch
- Cause of mismatch is secretions(laryngospasm)
- Cause of convulsions is hypoxia

- Complication after spinal is hypotension (blood loss)
- Cause of hypertension is pain (+ of SNS)
- Type of arrhythmia is sinus tachycardia(pain)
- Time of cardiac arrest is induction
- Cause of awareness is auditory stimulation
- GIT complication is nausea and vomiting
- Cause of anaphylaxis is smooth muscle relaxants(SMR)
- Thermal complications is hypothermia
- Cause of hyperthermia is Malignant hyperthermia
  - receptor is ryanodine receptors
  - electrolyte abnormality is hyperkalemia
  - max increase in ET-CO_2
  - Rx is i.v dantrolene
  - screening test is CPK levels
- Maximum decrease in vital capacity is Lithotomy position
- Injured nerve-Ulnar nerve
- Cause of venous air embolism is in Posterior fossa surgery
- Sensitive test for air embolism is TEE(trans esophageal echo)
- Eye complication is exposure keratitis
- Cause of blindness after anaesthesia is ION(Ischemic Optic Neuropathy)

LOCAL ANAESTHETICS - MC

- Manifestation of toxicity is peri-oral tingling and numbness
- Cvs abnormality is Ventricular Tachycardia(VT)
- Drug causing VT is bupivacaine(Rx with Bretylium)
- methemoglobinemia is Prilocaine
- T'eratogenic effect is T'etracine and Lignocaine
- Decreased nerve block is procaine
- Used for Rx of malignant hyperthermia is procaine
- MC used is lignocaine

- MC used LA for VT is lignocaine
- Safest is Prilocaine
- Extrahepatic elimination is Prilocaine(site is lungs)
- Causing differential blockade is bupivacaine
- Shortest acting is chlorprocaine(C comes n goes very early)
- Most potent, longest,toxic is Dibucaine
- Constituents of EMLA cream(for children) is LP(Lignocaine and Prilocaine)
- MC brachial block used is supraclavicular block
- Compication of supraclavicular block is Pneumothorax
- Maximum failure rate is Infraclavicular
- Least failure rate is Biers block
- Most commonly used drug for Bier block is Xylocard
- Absolutely contraindicated for Biers is Bupivacaine
- Earliest feature of Stellate ganglion block is congestion of conjunctiva
- Nasal stuffiness after stellate block is GUTTMA'NN' sign
- Tympanic M'embrane congestion is M'uller sign
- Complication of celiac plexus block is Hypotension

MC of SPINAL

- s/e is hypotension
- cause of apnea is hypotension
- cause of nausea and vomiting is hypotension
- cause of shivering is vasodilation(Rx with Pethidine)
- earliest feature is flaccid and engorged penis
- GUT complication is urinary retention (POUR)
- CNS complication is Post Dural Puncture Headache (PDPH)
- Cause of cauda equina syndrome is continuous spinal anesthesia

- Cause of paraplegia is epidural hematoma
- Cranial nerve palsy is 6th nerve palsy(diplopia)
- Cause of bacterial meningitis is Staph.epidermidis
- Cause of nonbacterial meningitis is Glove powder

EPIDURAL ANESTHESIA

- Needle used is TUHOY needle
- Drug used for single segment is Lignocaine
- Drug used for sensory block is Bupivacaine
- Disadvantage is patchy block(L5/S1 is usually spared)
- Dreaded complication is Total block due to dural puncture
- MC used in child is Caudal
- Pain assessment scale in adult is VAS (Visual Analog Scale)
- Pain assessment in CHild is CH'EOPS

OPIOIDS

- Super opioid is Sufe'ntanyl(super'fentanyl)
- ALL body rigid is ALfentanyl(max rigidity)
- Shortest is REMIfentanyl(REMI=ROMEO=relationships for a day only=daycare surgery)
- Convulsions is Pethidine
- Biphasic resp depression is Fentanyl
- Delayed resp depression is Morphine
- Cheese reaction is with Pethidine/meperidine
- Shortest acting antagonist is Naloxone

Special property	Inhalation anaesthetic	i.v anaesthetic	Smooth muscle relaxants	Local anaesthetic	opioids
Shortest acting	desflurane	propofol	succinylcholine (overall) mivacurium (NDMR)	chlorprocaine	remifentanyl
Longest acting	halothane	thiopentone	----	dibucaine	----
Potent	methoxyflurane/ halothane	ketamine	doxacurium	dibucaine	sufentanyl
For intubation	------	propofol	succinylcholine/ rocuronium	lignocaine	sufentanyl
For CVS patients	isoflurane (except in mi)	etomidate	vecuronium	prilocaine	fentanyl
For Head injuries	isoflurane	thiopentone	succinylcholine/ rocuronium	----	----
For shock	desflurane(>6%)	ketamine	pancuronium	----	pentazocine
For children	sevoflurane	midazolam	rocuronium	----	----
Day care surgery	desflurane	propofol	mivacurium	----	remifentanyl

PHARMACOLOGY

Mono clonal Antibodies

Prefix + Target + Organic subsystem + Suffix

vi -V	-	Viral	U	-	hUman
b	-	bacterial	mo	-	Mouse
L	-	Lower immunity	rAt	-	Rat
F	-	Fungal	Xi	-	chimeric
N	-	Nervous system	i	-	Primate
K	-	Kin (Interleukin)	Zu	-	Humanized
Mu	-	Musculo skeletal	axo	-	ratxmousehybrid
'O's	-	Bone	Xizu	-	Chimeric
Co	-	Colonic tumor	me	-	melanoma
got	-	Testicular			
gov	-	Ovarian			
pr(o)	-	Prostrate			
tu(m)	-	tumor			
ma	-	mammary			

TNF - α: immuno suppression ⟶ Adalimumab ⟶ RA (Rh-arthritis)

Etanercept ⟶ RA

Infliximab ⟶ RA/ CD/PAIR

IL-2R: / CD-25 ⟶ Basliximab, Daclizumab } IS

IL-6R ⟶ Tocilizumab – SLE

VEGF ⟶ Bevacizumab, Ranibizumab

EGFR	→	Cetuximab	→	Colorectal cancer
		Nimotuzumab	→	SCC/ Glioma
		Panitumumab	→	Colo rectal
RANK	→	Done sumab	→	Osteoporosis
H-2/neu	→	Trastuzumab	→	Ca. breast
IgE	→	Omalizumab	→	Br. asthma
Aba-GOVomab	→	GOV	→	Ovarian cancer
Ab ci xi mab	→	GP IIb/IIIa	→	Antiplatelet
Ale fa cept	→	LFA-3	→	Psoriasis
Alem tu zumab	→	CD52	→	CLL
Ada li mumab	→	TNF α	→	RA
Basi li Ximab	→	IL-2	→	immunosuppression
Be li mumab	→	BLyS	→	SLE
Be Va ci zumab	→	VEGF	→	Colorectal Ca
Ce tu ximab	→	EGFR	→	Colorectal Ca
Cana-kin umab	→	Kin (IL-1β)	→	RA
Ca Pro mab	→	Pro	→	Prostrate
Dac li zumab	→	IL-2→Li	→	RA
Done-Su mab	→	Rank-s one	→	Bone Osteoporosis
Ecu lizumab	→	c5 – Li	→	PNH
Ecro me ximab	→	me	→	melanoma
Edro col omab	→	COL	→	Colonic cancer
Epra tu zumab	→	CD-22-tu	→	SLE
Etanercept	→	TNF-α-Li	→	RA
E-fungumab	→	Fung	→	Invasive candidal
Er-tu ma xomab	→	ma	→	mammary tumor
Gem-tu zumab	→	CD_{33} – tu	→	AML
Ibri-tu-momab	→	TNF-α-Li	→	B cell NHL
Inf-li-ximab	→	Integrin-α-4-Li	→	RA/CD
Nata-li-zumab	→	COL	→	Multiple sclerosis

Na-**col** omab	EGFR→tu	Colonic cancer
Nimo-**tu** zumab	CD_{20}→Li	SCC/ Glioma
Ocre-**li** zumab	IgE →Li	SLE
Ofatu-mumab	Fusion → vi	SLE
Oma-**li** zumab	bac	Br. asthma
Pa-li-vi-zumab	EGFR→tu	RSV
Pano-**bac**-umab	Bac	Ps. aeruginosa
Pani-**tu**-mumab	EGFR	Colorectal
Rani bi zumab	VEGF	Macular degeneration
Ri-**tu** xi mab	CD_{20} → tu	NHL
Sola-**ne** zumab	ne	Alzheimer's disease (neuron)
Sta-**mul**-umab	mul	Muscle (MD)
Tocili-zumab	IL-6→li	SLE
Uste**kin**umab	Kin (IL-12,23)	Multiple sclerosis

Antiepileptics

- Absence (< 3 yrs) → Ethosuximide
- Absence (3 yrs) → Valproate
- Absence (atypical) → Valproate

GTCS
Tonic/clonic
Atonic
Myoclonic
→ Valproate

Infantile spasms	ACTH Vigabatrin (in TS) (Tuberous Sclerosis)
Febrile seizures	Diazepam (PR)
Status epilepticus	Lorazepam (iv)
Eclampsia	i.v $MgSO_4$
Seizure in Pregnancy	Phenobarbitore
Seizure in Menses	Ganaxolone
Drug Induced	Long acting benzodiazepine
Lennox Gastaut	Rufinamide

Cancer Chemotherapy Regimens

ALL – *Induction* - Vincristine + Prednisolone + Daunorubicin + L-Asparginase + Methotrexate

Consolidation - Hyper-C-VAD (Cyclophosphamide + Vincristine + Adriamycin + Dexamethosone)

Maintainance - MTx, 6-MP

AML – Cytarabine + Daunorubicin +/- Etoposide (+gemtuzumab(CD33))

CML – Imatinib (for imatinib resistance - Dasatinib, Nilotinib)

CLL – Fludarabine + Rituximab (CD20)
Chlorambucil in very elderly
Alemtuzumab (CD52)

- **Hairy cell leukemia – CAP** - Cladarabine + Pentostatin + Adriamycin
- **Hodgkin's disease – ABVD** - Adriamycin + Bleomycin + Vinblastin + Dacarbazine
- **MOPP** – Mechlorethamine + Vincristine + Procarbazine + Prednisolone
- **NHL – CHOP** + Rituximab (Cyclophosphamide + Hydroxy daunorubicin + Vincristine + Prednisolone)
- **CTCL** – Denisleukin defitox
- **Multiple Myeloma** – Bortezomib + Dexamethasone + Lenalidomide
- **Polycythemia Vera** – Hydroxyurea + Anagrelide
- **Essential Thrombocythemia** – Hydroxyurea + Aspirin
- **Myelodysplastic syndromes** – Azacytidine + Decitabine
  5q Deletions- Lenalidomide
- **Waldenstorm Macroglobulinemia – FCR** - Fludarabine + Cyclophosphamide + Rituximab
- **NSC-LC:** Surgery f/b Cisplatin + Vincristine + Bevacizumab
- **SCLC:** Cisplatin + Etoposide
- **Mesothelioma** – Cisplatin + Pemetrexed
- **Astrocytoma** – Temozolamide
- **Head & neck cancer** – Cisplatin + 5FU (+cetuximab)
- **Ca Breast** – Tamoxifen(pre-op) Letrozole (post-op)
- Chemo-Doxorubicin, docetaxel, CPS, Trastuzumab (Her-2μ)

- **Uterine Ca** – Cisplatin + Paclitaxel
- **Ovarian Ca** – Carboplatin + Paclitaxel
- **Cervical Ca** – Cisplatin + Paclitaxel
- **Choriocarcinoma – EMACO:** Etoposide + MTx + Actinomycin-D +Cyclophosphamide + Vincristine
- **Testicular Cancers – BEP:** Bleomycin + Etoposide + Cisplatin
- **RCC** – Sunitinib + Sorafinib
- **Bladder** – Intravesical BCG + Cisplatin + Gemcitabine
- **Ca Prostate** – Flutamide + Gemcitabine
- **Esophageal cancers** – Cisplatin + 5FU
- **Ca stomach** – Cisplatin + 5-FU + Epirubicin
- **GIST** – Imatinib/Sunitinib
- **Ca pancreas** – Gemcitabine
- **Ca colon** – FOLFOX-6/ FOLFIRI + Bevacizumab
  FOLFOX-6 – **FOL**inic acid + 5**FU** + **OX**aliplatin
  FOLFIRI – **FOL**inic acid + 5**FU** + **IRI**notecan
- **Ca Rectum** – RT + 5FU
- **Ca anal canal** – RT + 5FU + Mitimycin-C [Nigro regimen]
- **HCC** – Sorafinib
- **Insulinoma** – Diazoxide/IFN/Streptozocin
- **Carcinoid** – Streptozocin + 5FU
- **Thyroid** – I131/ Sorafinib
- **Osteosarcoma** – Cisplatin + Doxorubicin + Ifofosamide + MTx
- **Soft tissue sarcomas** – MAID- Mesna + Adriamycin + Ifofosamide + Dacarbazine
- **Melanoma** – Dacarbazine
- **Kaposi Sarcoma** – Liposomal Doxorubicin / Daunorubicin
- **Prevention of renal transplant rejection** – Daclizumab, Basiliximab, Monomomab

Fastest:

* β-blocker ⟶ (1) Cardio selective ⟶ Nebivolol
(2) Anaesthetic ⟶ Propranolol

Longest ⟶ **Nadolol × Esmolol (shortest)**

Anti psychotic ⟶ **Penfluridol (Quetiapine is shortest)**

SMR	→	Shortest	→ Sch
		Fastest	→ Sch
		Longest/potent	→ Doxacurium
Non-D SMR	→	Short	→ Mivacurium
		Fast	→ Rocuronium
LA	→	Shortest	→ Chlorprocaine
		Fastest	
		Longest/potent/ toxic	→ Dibucaine
		For regional block	→ Bupivacaine
		For Bier's block	→ Prilocaine
SSRI	→	Fastest	→ Fluoxetine
		Shortest	→ Fluvoxamine
		Specific	→ Escitalopram
Anti-depressants	→	Shortest	→ Nafazodone
5-HT	→	Most potent	→ Paroxetine
		Least potent	→ Bupropion
		Selective	→ Escitalopram
		Longest	→ Fluoxetine
NA	→	Most potent	→ Desipramine
		Least	→ Mirtazapine
		Selective	→ Oxprotiline
		DA	→ Bupropion

M_2 block → Amitryptiline
$5HT_2$ (histamine) → Nafazodone
α_1 – block → Doxepin
$(M + H + \alpha_{1)}$ block → Max = Doxepin, Min = Venlafaxine

Potent	→	H_2 blocker	→ Famotidine
	→	$5HT_3$	→ Palomosetron
		Prolonged $5HT_3$	→ Palomosetron

* Direct Thrombin Inhibitor → Biralirod (Shortest 1/2)
* Longest fibrate → Fenofibrate
Maximum statin absorptn → Fluvastatin

PHARMACOLOGY MNEMONICS

- "Tins" are for "Kins" ⟶ Imat**in**ib for Tyrosine **Kin**ase
- "Trastuzumab ⟶ **Her** – 2 neu → Trust her 2 Breasts (Breast Ca)
- "Lapatinib ⟶ Both ER-1/ER-2 → Breast suckling in Lap (Breast Ca)
- "Cytarabine ⟶ Causes Cythan (devil) symptoms → Cerebellar → [dysphasia ataxia]
- CephAloThiN ⟶ Cephalosporin causing ATN (Acute Tubular Necrosis)
- Longest acting β-blocker ⟶ **Nadal**ol (Nadal is long acting player)
- Shortest action β-blocker ⟶ Esmolol (S = Shortest)
- When u vomit, vomit in a plate ⟶ Cis-Plate-in (most emetic) plate
- Short acting benzodiazepines ⟶ STOLE → Safe

  S ⟶ Safe I liver disease
  T ⟶ Triazolam + Teneazepam
  O ⟶ Ozazepam
  L ⟶ Lorazepam
  E ⟶ Estazolam

- **Side effects** contraindications of L-dopa

  There was a elderly patient (with Parkinsons) with treatment on L-dopa, the sequence of events were

  Previous complaints ⟶ **after L-Dopa**

  1) Blurring of vision ⟶ Blindness

  2) Belching ⟶ Bleeding (haematemesis)

  After giving L-dopa, he became blind, started bleeding (haematemesis), started dancing (chorea) with a heroine (hallucination), became very hot (neurolept malignant syndrome)

- **Side effects** of Clozapine (for Schizophrenia): SPASM

S ⟶ Seizures
P ⟶ Paralytic ileus
A ⟶ Agranulocytosis
S ⟶ Siallorhea
M ⟶ Myocarditis
Cloz ⟶ Chapter close death (myocarditis)
Z ⟶ Zitterness
A ⟶ Agranulocytosis
PI ⟶ Paralytic ileus
NE ⟶ Nausea → Emesis

Lithium

LI ⟶ Leucocytes increased (used in Leucopenias)
T ⟶ Tremors
H ⟶ Hypothyroidism (as well as hyperthyroidism)
I.U ⟶ Increased urine output (used in SIADH)
M ⟶ Mothers (pregnant) → Ebstein anomaly in fetus

Disulfiram like

Metronidazole
Chlorpropamide
Cefomandole
Cefoperazone
Moxalactam
Griseofulvin

⇒ RANI (queen) was blind (ARMD) ⟶ So the king made Ranibizumab (Ref. Garg) ⟶ ARMD (Age Related Macular Degeneration)

- Inhibitors of cyst P450 (Ref: Garg) ⟶ Vitamin K cannot cause Enzyme Inhibition

  V ⟶ Valproate
  K ⟶ Ketoconazale
  C ⟶ Cimetidine
  C ⟶ Diprofloxacin
  E ⟶ Erythromycin
  I ⟶ Isozniazid

  ➥ Sole – nizumab is for SOLO persons (Alzheimers disease)
  ➥ Donesomab is for Bone (DONE = BONE = Osteoporosis

Aspirin side effects

A ⟶ Asthma
S ⟶ Salicysm
P ⟶ Peptic ulcer disease
I ⟶ Internal bleeding
R ⟶ Reye syndrome
I ⟶ Idiosyncratic reaction
N ⟶ Noise

Methotrexate side effects

H ⟶ Hepatotoxic
U ⟶ Ulcerative mucositis
M ⟶ Megaloblastic anemia
Myelosuppression
A ⟶ Alopecia
N ⟶ Neurotoxic
Nephrotoxic

Drugs causing acute Pancreatitis

1 ⟶ **A** – Asparginase
2 ⟶ **Di** – danosine
3 ⟶ **Tri**-amterene
4 ⟶ **Tetra**-cycline
5 ⟶ **Penta**-midine

- Lamo-**Trig**-ine **trig**gers ⟶ Steven Johnson Syndrome / TEN
- TOP –iramate causes weight loss from TOP to bottom
- FelbAmAte causes ⟶ Aplastic Anemia
- Carbmazepine ⟶ Cerebellar symptoms / Aplastic Anemia

↳ Heparin Induced Thromocytopenia (HIT) is due to antibodies against Platelet Factor 4 → **Hit a 4**

Anti hyperlipidemics

AVASIMIBE ⟶ inhibit "ACAT" – 1

TOR-CETRAPIB ⟶ inhibits CETP (Cholesterol Esteryl Transport Protein)
(TOR – **CE** – **T** – RAP 18)

Niacin ⟶ 4H → inhibits **H**ormone Sensitive Lipase
⟶ maximum increases **H**DL
⟶ increases **H**istamine (reversed by Aspirin)
⟶ **H**epatotoxic
⟶ **H**yperuricemic

VIGABATRIN

VI ⟶ Visual disturbances
GABA ⟶ GABA
TR ⟶ Transaminase
IN ⟶ Inhibitor

Hyperkalemia

Heart DANCES in Hyperkalemia

D ⟶ Diuretics (K^+ sparing)
A ⟶ ACE inhibitors
N ⟶ NSAID's
C ⟶ Cyclosporine
E ⟶ Enoxaparin
S ⟶ Succinylcholine

INFLIXIMAB

Remember IRCTC

I ⟶ Immune

R ⟶ RA (Rheumatoid Arthritis)

C ⟶ CD (Crohns disease)

T ⟶ TNF – alpha / beta (TB is a side effects)

C ⟶ Chimeric

Fulvestrant

Ful ⟶ Full

Estr ⟶ Estrogen receptor

Ant ⟶ Antagonist

Side effects of Estrogen

E ⟶ Emesis

S ⟶ Stroke / Sodium retention

T ⟶ Thrombosis

R ⟶ Reproductive development

O ⟶ Oncogenic (Breast)

G ⟶ Glucose intolerance / Gall Bladder disease

E ⟶ Enhances HDL

N ⟶ 'NO' release → flushing → 'NO' release

- **All ACE inhibitors are prodrugs except** ⟶ Captopril, Lisinopril } (CL)
- **All Beta blockers are specific except** ⟶ Carvedilol, Labetalol } (CL)

Direct Thrombin Inhibitors: DOC in

Argatroban ⟶ **ARF**

Lepirudin ⟶ **Liver disease**

Bivalrudin ⟶ **Bypass (CABG)**

Drugs causing hypertension

- Cocaine
- Cyclosporine
- Contraceptives
- Coxibs
- Corticosteroids
- Cyclic antidepressants
- Clonidine withdrawal

Factors

Precipitating	Digitalis toxicity
– More age	Less GFR
– More calcium	Less blood to heart
– More current (cardioversion)	Less O_2
Less Mg^{+2}	
Less K^+	
Less thyroxine	

- Prophylaxis of migraine requires→ a Pill For MIGRAINE...i.e
  - Propanolol
  - Flunarizine
  - Methysergide
  - Isocarboxazid
  - GABA—valproate, Topiramate
  - Amytryptaline, IN
  - Ergots
- A'S'pirin inhibits A'cetylation of S'erine of COX
- D'OPA D'ecreases D'oodh(milk=prolactin)
- Bos-EN-T-AN ⟶ EN-do-T-helin receptor ANtagonist (persistent pulmonary hypertension)
- A-PRE-P-itant ⟶ PREvents substance P (Rx of chemotherapy induced vomiting)
- Interstitial cosides ⟶ NO to anaerobes

D-A-P-TO-MY-CIN

D-depolarisation is mechanism of action
A-All organisms are susceptible
P-Pulmonary surfactant is its inhibitor
TO-to be avoided in pneumonia
MY-MYopathy is common side-effect and it's a
CI-cidal drug

B-U-S-ULF-an

Bilateral adrenal haemorrhage **U**ricemia(gout)
Skin hyperpigmentation **U**nilateral **L**ung **F**ibrosis

PROcarbazine is PROleukemic and Psychotic

Prophylaxis:

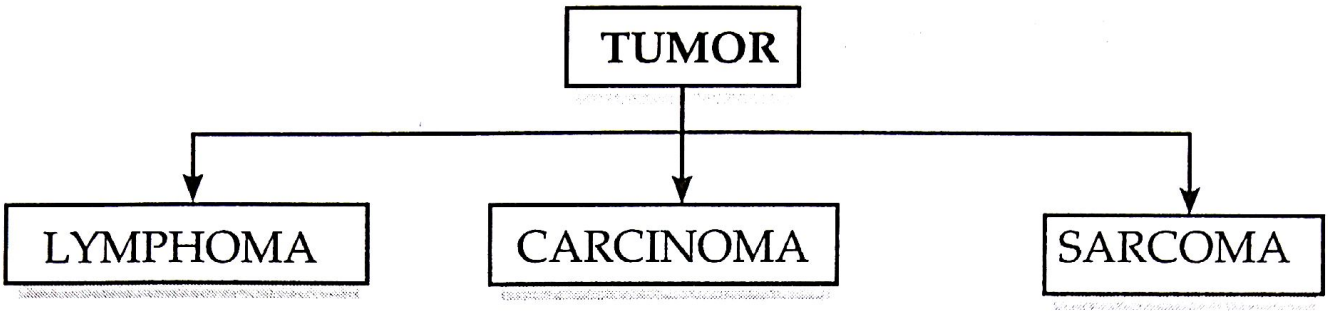
ChLorambuciL	→	Rx for CLL
Anthrax	→	**C**iprofloxacin [A – C]
Cholera	→	**D**oxycycline [C – D]
Diphtheria	→	**Ery**thromycin [D – E]
HSV	→	Acyclovir
Rheumatic fever	→	Benzyl penicillin
Tuberculosis	→	Isoniazid
Meningococcal	→	Rifampin
Gonorrhea	→	Penicillin
Rickettsiae	→	Tetracycline
Malaria	→	Chloroquine
Influenza	→	Oseltamivir
Surgical prophylaxis	→	Cefazolin
HiB	→	Rifampin
MAC	→	Azithromycin
Otitis	→	Amoxycillin
Pertussis	→	Tetracycline
Plague	→	Doxycycline
P.jiroveci	→	Cotrimoxazole
Toxoplasmosis	→	Spiramycin
UTI	→	Septran

PATHOLOGY

STAINS

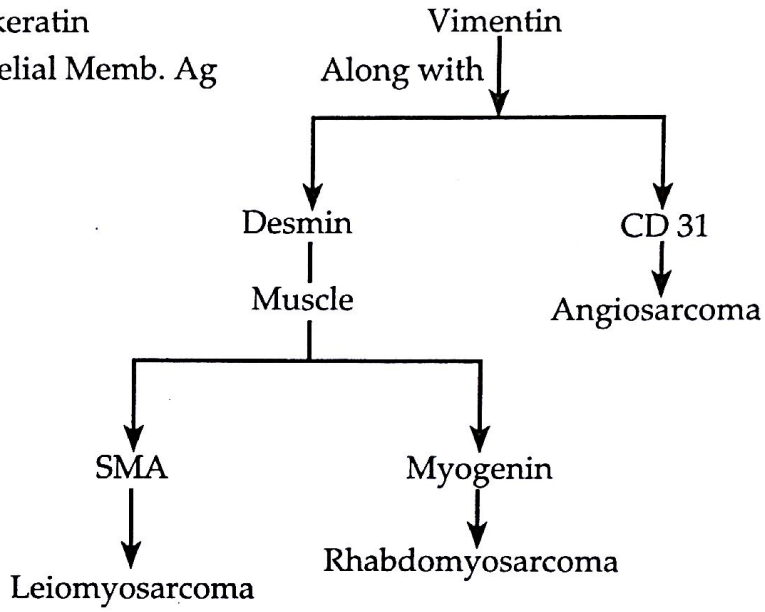
- **MPO** – Neutrophils and Eosinophils
- **Sudan black** – Lipids + Granulocytes
- **Specific esterase(Leder stain)** – Granulocyte, Chloromas
- **NSE(ANB)** – Monocytes, platelets, carcinomas
- **TdT** – Immature cells (90%)-ALL
- **LAP – L** ⟶ Increased in leukemoid reactions and polycythemia
- **A** – and
  P ⟶ decreased in PNH, CML, MDS
- **Acid Phosphatase** – Platelets/ RBC/ Macrophages
- **TRAP** – Hairy Cell Leukemia
- **PAS** – Glycogen ⟶ Blasts/RBC's/Leukemias /Gaucher cells
- **Toludine Blue** – Basophils/Mast cells

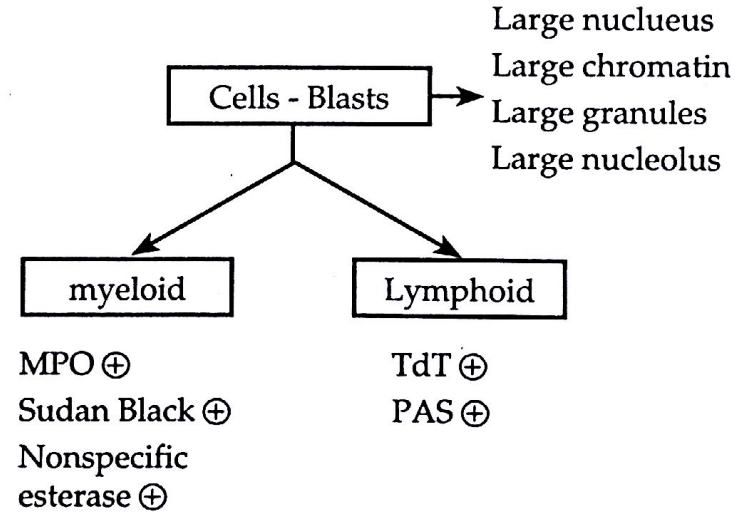
Fat ⟶ Sudan black, Oil red-O
Glycogen ⟶ PAS with diastase sensitivity, carmine
Calcium ⟶ Von kossa, Alzarine red
Amyloid ⟶ Congo red, thioflavin T&S
Hemosiderin ⟶ Perl's stain
Collagen ⟶ Mason's trichome
Copper ⟶ Rubeanic acid, Orcein
Iron ⟶ Prussian blue
Melanin ⟶ Mason Fontana
Elastin ⟶ Verhoff von Gieson
Collagen ⟶ Mason's trichome
Upper GI ⟶ Mucicarnine
Small Intestine ⟶ Alcian blue (pH-2.5)
Colorectal ⟶ Alcian blue (pH-1.5)
DNA ⟶ Fuelgel stain
RNA ⟶ Methyl green



CD-2,4,5,7,8 ⟶ T – Cell
CD 3 ⟶ Pan T
CD 10 ⟶ CALLA
CD 13,33,117, MPO ⟶ myeloid
CD15+,CD30+ ⟶ Hodgkin's Lymphoma (Reed-Stenberg cells)
CD 16, 56 ⟶ NK cells
CD 19 ⟶ Pan B
CD 20, 21, 22 ⟶ B cells.
CD 5 +, CD 23+ ⟶ CLL / SLL
CD 5 +, CD 23- ⟶ Mantle cell lymphoma
CD 30 ⟶ ALCL
CD 31, CD 34 ⟶ Endothelial
CD 34 ⟶ Stem cell
CD 35, CD 36 ⟶ Glycophorin RBC (6)
CD 41, CD 61 ⟶ Platelets
CD 45 ⟶ LCA (Leucocyte Common Antigen)
R"O" ⟶ Mem"O"ry cells
CD 45 RA/RB N'A'ive B, T
CD55, CD59 ⟶ PNH
CD68, S-100 ⟶ Malignant Fibrous Histiocytoma (MFH)
CD95 ⟶ FAS (apoptosis)
CD103, CD123 ⟶ Hairy Cell Leukemia (TRAP +ve)
CD117 ⟶ Mastocytosis (c-kit), GIST
CD1a, S-100, CD207 ⟶ Langerhan Cell Histiocytosis

Cytokeratin
Epithelial Memb. Ag
CEA





PROTO ONCOGENES

- **Growth factors:** PDGF ⟶ sis ⟶ Astrocytoma
  FGF ⟶ HST-1 ⟶ Gastric Ca
  ⟶ InT-2 ⟶ Bladder Ca
- **Growth Factor Receptors:**
- RET ⟶ MEN-2A, MEN-2B
  C-KIT ⟶ GIST
  EGFR ⟶ ERBB1 ⟶ Squamous Cell Ca Lung
  EGFR ⟶ ERBB2 ⟶ HER-2-4 ⟶ Ca Breast
- **Signal transducing proteins:**
  RAS ⟶ K-RAS ⟶ Ca Colon/Ca Pancreas
  H-RAS ⟶ Ca Kidney/Ca Bladder
  N-RAS ⟶ Sporadic melanoma
- **Nucleus transcription factors:**
  myc ⟶ C-myc ⟶ Burkitt Lymphoma (C = Cell)
  ⟶ N-myc ⟶ Neuro Blastoma (N = Neuro)
  ⟶ L-myc ⟶ Small Cell Ca. of Lung (L = Lung)
- **Cell Cycle Regulators:**
  Cyclin-E ⟶ Ca. Breast
  Cyclin-D ⟶ Mantle Cell Lymphoma
- **Tumour Suppressor Genes:**

RB gene ⟶ Retinoblastoma
APC gene ⟶ FAP
P-TEN ⟶ Cowden syndrome
NF-1 ⟶ Neurofibromatosis-1
NF-2 ⟶ Neurofibromatosis-2
VHL ⟶ RCC (Clear Cell type)
WT-1 ⟶ Wilm's tumour
WT-2 ⟶ Beckwith Wiedemann syndrome

- **GENES FOR DNA REPAIR:**

Mismatch Repair — MSH2, MLH-1 } ⟶ HNPCC

Nucleotide excision repair ⟶ Xeroderma pigmentosum

Base excision repair ⟶ Autosomal recessive – FAP

Post Replication repair genes ⟶ Ataxia telangectasia
Bloom's syndrome
Fanconi's anemia

- Mnemonic ⟶ You cant repair a **Big FAX**

AUTO ANTIBODIES

Anti ds DNA	- SLE
Anti Sm antigen	- SLE
Anti Histone	- Drug induced SLE
Anti SSA (ro) / SSB (La)	- Sjogren syndrome, Lupus nephritis, DLE
Anti RNP	- Mixed connective tissue disorder
Anti topo isomerase	- Diffuse sclerodema
Anti fibrillin	- Diffuse sclerodema
Anti centromere	- CREST syndrome (Localised scleroderma)
Anti Histidyl / Trna	-
Anti mitochondrial	- Primary Biliary Cirrhosis
Anti endomysial	- Whipples disease
Anti Proteinase-3	- C-ANCA
Anti AchR	- Myaesthenia Gravis
Anti VQ Ca^{+2}	- LEMS (Lambert-Eaton Myaesthenic Syndrome)
Anti Ryanodine Receptor	- Malignant Hyperthermia
Anti GBM	- Good Pasture Syndrome (GPS)
Anti LKM	- Auto immune hepatitis Hepatitis-D Drug induced hepatitis.

Anti – CCP – II RA - asso. Nucleolar Ag	Rheumatoid arthritis
Anti – JO – I	- Polymyositis
Anti cardiolipin Anti phospholipid Anti protein-c & protein-s Anti P2 – Glycoprotein-1	Anti phospholipid antibody syndrome

PARANEOPLASTIC SYNDROMES

Endocrine

Cushing's syndrome	- Small Cell Carcinoma of Lung, Ca. pancreas
SIADH	- Small cell Ca lung, squamous cell carcinoma lung, ICSOL
Hypercalcemia	- Squamous cell carcinoma lung, Ca. breast, RCC, Ovarian Ca, adult T-cell leukemia
Hypoglycemia	- Fibrosarcoma, HCC, mesenchymal sarcomas
Carcinoid syndrome	- Bronchial adenoma, Ca pancreas, Ca stomach
Polycythemia	- RCC, HCC, Cerebellar Hemangioblastoma

Nerve & Muscle

Myasthenia	- Bronchogenic Ca, thymoma
LEMS Cerebellar Sensory + Peripheral Dermatomyositis	Small cell carcinoma of lung
Stiffman	- Ca.Breast, Ca Ovary, Gastro intestinal tumours

Cerebellar degeneration	-	Hodgkins Lymphoma, Ca Breast, Ca Ovary, Neuroblastoma
Limbic	-	Neuroblastoma, SCLC
Brain stem	-	Testicular tumours
Opsomyoclonus	-	Neuro blastoma, Ca Breast
Retinal degeneration	-	SCLC
Dermatomyositis	-	Bronchogenic Ca, Ca Breast
Acanthosis nigrans	-	Ca stomach, Bronchogenic Ca, Uterine Carcinoma
Sweet syndrome	-	Lymphomas, Ca pancreas

Hypertrophic osteo orthropathy/ clubbing	→	Bronchogenic Ca
DVT (trosseau syndrome)	→	Ca pancreas, SCLC
Non bacterial thrombotic endocarditis	→	Advanced cancers
Anemia	→	Thymoma
Stauffer syndrome (↑ LFT)	→	RCC
Systemic fibrinolysis	→	Ca prostate

TUMOR MARKERS

Hormones

hCG	→	Trophoblastic tumours / Non seminomatous testicular tumors, chorio carcinoma
Calcitonin	→	Medullary carcinoma of thyroid
Catecholamines	→	Pheochromocytoma
Ectopic hormones	→	Paraneoplastic syndromes

Oncofetal Antigens

AFP	→	Liver cancer(HCC/Non seminomatous germ cell tumours of testis
CEA	→	Ca. colon/Ca. pancreas/Ca. stomach/ Ca. lung/Ca. Breast

Iso enzymes

(PAP) Prostatic acid phosphatase ⟶ Ca. prostrate

(NSE) Neuron Specific enolase ⟶ Neuroblastoma(N-N)
Squamous cell carcinonia of lung(S-S)

Proteins

1. Immunoglobulins-Beta (β2) ⟶ Multiple myeloma
2. PSA ⟶ Ca. prostrate
3. Placental Alkaline phosphatase (PLAP) ⟶ Seminoma

Mucins

CA-125	⟶	Ca. ovary
CA-19-9	⟶	Ca. colon / Ca. pancreas / Ulcerative colitis/Primary Sclerosing cholangitis
P53—APC, RAS	⟶	Ca. colon
RAS	⟶	Ca. pancreas
RAS in sputum	⟶	Ca. lung
In urine	⟶	Ca. Bladder

Neuroendocrine markers

NSE
Chromogran-in
Synaptophysin
} Neuroblastoma

HMB-45 – Malignant Melanoma

S-100 – Maligant melanoma/Langerhan-cell Histiocytosis (LCH)

Neural tumours (neurofibroma), liposarcoma, Chondrosarcoma.

GFAP – Neurofibroma

CD-99 – Ewings sarcoma

Others:

- CD 25 ⟶ Hairy cell Leukemia
  Adult T cell Leukemia
  Lymphoma.

- CD30 ⟶ Hodgkins disease
  Anaplastic large cell lymphoma.
- PIVKA-2 ⟶ Hepato Cellular Carcinoma (HCC)
- Neurotensin ⟶ Fibro Lamellar Variant (FLV) of HCC.

AUTOSOMAL DOMINANT (50%)

Complex metabolisms - Hypercholesterolemia ⟶ (fatty) = so dominate
Porphyrias

Structural ⟶
- Marfans syndrome ⟶ (tall) = dominate
- Neurofibromatosis – 1 & 2 ⟶ (long name-dominant)
- Tuberous sclerosis
  VHL
- MEN syndromes ⟶ (MEN in blue dominate)
- Hereditary spherocytosis
- Von Willebrand disease ⟶ (Brand-costly) = dominant

Bones ⟶
- Achondroplasia ⟶ (short but
- dominate)
- Osteogenesis imperfecta
- Charcot Marie tooth disease
- Hypophosphatemic rickets (D)

Families ⟶
- FAP
- Gardners syndrome
- Peutz Jegher syndrome
- BRCA

} (Familiesdominate)

Others ⟶
- Retinoblastoma
  Wilms tumor ⟶ (Williams sisters dominate)
  Oto sclerosis
  Huntington's disease ⟶ (Hunting in tones-dominate)
  Myotonic dystrophy [(MD) dominate]

AUTOSOMAL RECESSIVE(25%)

All enzyme deficiency disorders
- Glycogen storage disorders
- Lysosomal storage disorders
- Phenyl ketonuria
- Alkaptonuria
- Galactosemia
- Homocystinuria
- α_1 – AT deficiency
- Cystic Fibrosis
- Wilson's disease
- Hemochromatosis

Blood related
- → Sickle Cell anemia
- → Thalassemia
- → Kartagener's syndrome
- → Turcot syndrome
- → Chediak Higashi syndrome
- → Albinism
- → Friedrich ataxia
- → Congenital adrenal hyperplasia

Defects in DNA repair → Blooms syndrome

Big FAX
- Fanconi's anemia
- Ataxia telangiectasia
- Xeroderma pigmentosum

X-linked dominant → (Females)

Vit –D resistant Rickets → Related to osteoporosis = females

Rett syndrome → Rett = (Reverse gear of mile-stones → Women talk reverse).

Oro-facial digital syndrome → Lipstick(Oro) Facials (facial) Nail polish(digital)

Incontinentia pigmenti ⟶ Females are pigmented Is seen in girls.

⇨ **X-linked recessive** ⟶ **B**oys

Hemophilia A & B ⟶ **B**oys bleed

Duchenne muscular Dystrophy ⟶ (–)

Colour blindness ⟶ boys

Diabetes insipidus ⟶

Hunter's disease ⟶ Boys hunt

Fabry's disease ⟶ B = Boys

Fragile – X – syndrome ⟶ Macro-orchids = boys

Dents disease

Alport's syndrome

Kall**man** syndrome ⟶ Man = X_R

Agamma globulinemia/Bruton's disease

Wiscott-Aldrich syndrome ⟶ Wisc = Whisky = men.

G6PD deficiency

Lesch-Nyhan syndrome

Chronic Granulomatous disease

TRINUCLEOTIDE REPEATS

Freidrich's ataxia - GAA - **F**rataxin

Fragile-x-syndrome - CGG - **F**MR-1 protein

Myotonic dystrophy - CTG - **M**D-protein kinase

Huntington disease - CAG - **H**untingtin

Spinobulbar Muscle Atrophy [Kennedy disease]- Androgen receptor

Dentato rubro pallido luysian atrophy-**A**trophin-1⟶ DRPLA

Spinocerebellar ataxia ⟶ SCA-1 ⟶ **A**taxin-1

SCA-2 ⟶ **A**taxin-2

SCA-3 ⟶ **A**taxin-3

SCA-7 ⟶ **A**taxin-7

SCA-6 ⟶ α, A – Ca^{+2}

SPM

Days of importance

30th Jan	⟶	Anti-leprosy
2nd Wed March	⟶	No Smoking day
8th March	⟶	Womens day
24th March	⟶	Anti TB day
7th April	⟶	Health day (WHO)
8th May	⟶	Red Cross day
31st May	⟶	No Tobacco day
5th June	⟶	Environmental day
11th July	⟶	Population day
8th Sep	⟶	Literacy day
1st Oct	⟶	Older Persons day
10th Nov	⟶	Immunisation day
7th Nov	⟶	Cancer awareness day
10th Dec	⟶	Human Rights day

Committees

Bhore	⟶	1946
Mudaliar	⟶	1962
Chadah	⟶	1963
Mukherjee	⟶	1965
Jungalwala	⟶	1967
Kartar Singh	⟶	1973
Shrivastav	⟶	1975
Rural Health Scheme-ROME	⟶	1977
Krishnan	⟶	1983
Bajaj	⟶	1986

Occupational Diseases

Workmans Compensation Act	⟶	1923
Factories Act	⟶	1948
Dock Labourers Act	⟶	1948
ESI	⟶	1948
Mines Act	⟶	1952
Maternity Benefit Act	⟶	1961
Nolifiable Diseases Act	⟶	1976
Rajiv Gandhi Shramik Kalyan Yojana	⟶	2005
Kyoto Protocol	⟶	2005
Biomeidcal Waste Management	⟶	1998
IT Act	⟶	2000

Years of importance

Quarantine	→	1870
Vaccination	→	1880
SARDA Act	→	1929
ESI	→	1948
Prevention of Food Adulteration	→	1954
Immoral Trafficing	→	1956
Indian Medical Association (Ethics)	→	1956
Dowry Prohibition Act	→	1961
Maternity Benefit Act	→	1901
Births/Deaths Registration Act	→	1969
Medical Termination of Pregnancy	→	1971
Narcotics Prevention Act	→	1985
COPRA	→	1986
EPI [Expanded Prog of Immunisation]	→	1978
EPA (Environment Protection Act)	→	1986
UIP[Universal Immunistation Programme]	→	1985
Mental Health Act	→	1987
Infant (CSSM)	→	1992
Human Rights Act	→	1993
NTCP (TB)	→	1962
Pre Natal Diagnosis & Termination (PNDT)	→	1994
RNTCP	→	1993
NREGA	→	2005
NLEP	→	1983
NRHM	→	2005
RCH	→	1997
JSY	→	2005
IT Act	→	2000

Right To Information	⟶	2005
National Malaria Control Programme	⟶	1953
National Malaria Eradication Programme	⟶	1958
Universal Malaria Scheme	⟶	1971
Roll Back Malaria	⟶	1998
National Vector Board Control Programme	⟶	2004
National Filariasis Control Programme	⟶	1955
National Filariasis Elimination	⟶	2015 (till)
NPCB	⟶	1976
National Cancer Control Program	⟶	1975
AIDS (NACO)	⟶	1987

Period of Communicability

Chicken pox	1-2 days	Ⓡ		4-5	(R = Rash, S = Symptoms)
Measles	4	Ⓡ		5	
Mumps	4-6	Ⓢ		7	
Rubella	7	Ⓡ		7	
Influenza	1-2 –	Ⓢ	–	1-2	
Diphtheria	14-28 after disease onset				
Pertussis	7 days after exposure to 3 week after paroxysms				
Polio	1 week –	Ⓢ	–	1 week	
Hep-A	2 week –	Ⓙ	–	1 week	(J = jaundice)

Plague
- Bubonic – 2-7 days
- Pneumonic – 1-3 days
- Septicemic – 2-7 days

- Taeniasis – 8-14 weeks
- Ascariasis – 2 months
- Ancykostomiasis – 5 weeks – 9 months
- Guinea worm – 9-14 months

Incubation Period

Smallpox - 7-17 days
Chickenpox - 14-16 day
Measles - 10-14 day
Mumps - 14-21 day
Rubella - 14-21 days
Inflluenza - 18-72 hrs
Diptheria - 2-6 days
Pertussis - 7-14 days
Meningo coccemia - 3-4 days
SARS - 3-5 days
Scrub typhus - 10-12 days
Q fever - 2-3 weeks
Leishmaniasis - 1-4 months
Trachoma - 5-12 days
Tetanus - 6-10 days
Yaws - 3-5 weeks
HIV/AIDS - few mths - 10 yrs

- Polio myelitis - 7-14 days

Hep. A - 15-45
Hep. B - 30-180 [75 days]
Hep-C - 30-120
Hep-D - 21-45
Hep-E - 21-60

- Cholera – 1-2 days
- Typhoid – 10-14 days
- Staphylococcal food poisoning – 1-6 hrs
- Dengue – 3-15 days
- Malaria – 8-17 days
- Lymphatic Filariasis – 8-16 months
- Rabies – 3-8 weeks
- Yellow fever – 2-6 days
- JE – 5-15 days
- KFD – 3-8 days
- Chicken gunya – 4-7 days
- Leptospirosis – 4-20 days

Weight

- BMI – Quetelet index
- Ponderal index
- Lorentz formula
- Corpulence index (no height)

Scales

- Nominal – x^2 Square test
- Ordinal ⟶ Percentile
- Metric
- Gutlmann scale
- Likert scale – ordinal
- Adjectival scale

GENERAL

1. Kaplan Meies Curres: Survival rate curves
   (Hazard ratio) Weighted Relative risk (RR)
2. Standardisation - Direct - Comparative mortality ratio
   Indirect - Standardised mortality ratio
3. Incidence ⟶ Rate
   Prevalence ⟶ Ratio $P = I * D$
4. Cross sectional ⟶ Prevalence
   Longitudinal ⟶ Incidence
5. Periodic fluctuations - Seasonal
   Cyclic
   Long term = Secular *
6. Case control - Retrospective Study
   Cohort - Prospective (Best) Study
7. Case control in a cohort - Nested case control
8. Odd's Ratio(case control) - Strength of association = $\frac{ab}{bc}$

9. Relative risk = $\frac{\text{Incidence in exposed } (I_x)}{\text{Incidence in non-exposed } (I_{nx})}$

10. Attribute risk = $\frac{I_{ex} - I_{nx}}{I_{ex}}$

11. Population attributable risk = $\frac{I_{population} - I_{nonexposed}}{I_{population}}$

12. Problem in cross-sectional study is seasonal variation.
    Problem in Ecological study is ecological fallacy.
    Problem in case-control study in Recall/selection bias.
    Problem in Cohort sutdy is Attrition.

13. Most important in RCT → Intention to treat analysis
14. Hill's criteria → Casual inference
    Most important → Temporal association
    Most weak → Specificity
15. Berkesonian bias → Selection bias (hospital admission)
16. Control of confounding factor
    - (1) Study - Matching, Randomisation
    - (2) Analysis - Stratification, Regression
17. Delphi technique → Group communication process

Occupational Cancers

1. Arsenic → Haemangiosarcoma
2. Asbestos → Mesothelioma
3. Benzene → Leukemia/Hodkins disease.
4. Berylium → Lung cancer.
5. Chromium, Radon → Lung cancer.
6. Cadmium → Prostrate cancer.
7. Ethylene oxide → Leukemia
8. Nickel → Nose/lung
9. Vinyl chloride → Angiosarcoma (liver)

* Quantity × Quantity - Z/ 't' test is used
Quantity × Quality - Chi square test is used
Quantity × Quality - Chi square test is used.

Weight

- BMI – Quetelet index
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- Corpulence index (no height)

Scales

- Nominal – x^2 Square test
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- Gutlmann scale
- Likert scale – ordinal
- Adjectival scale

VECTORS

(1) Sandfly is '**SOLO**' ⟶ (1) Sandfly fever
(2) Oraya
(3) Leishmania
(4) Oriental sore

(2) Tse-Tse ⟶ Sleeping sickness (tseeee tseee = sleeeeping)

(3) Louse ⟶ P – Pediculosis
E – Epidemic typhus
R – Relapsing fever
T – Trench fever

(4) Rat flea ⟶ 'CHEP' (1) Chiggerosis
(2) Hymenolopis
(3) Endemic plague
(4) Plague bubo

(5) **Black**fly ⟶ River **blind**ness (Onchocerciasis)

(6) Reduvid bug ⟶ Chagas **(RC)**

(7) **So**ft tick ⟶ **Q** fever / **R**elapsing fever (**QR-S**)

(8) Hard tick ⟶ T^3V_2 – (1) **T**ick typhus
(2) **T**ick paralysis
(3) **T**-KFD
(4) **V**-encephalitis
(5) **V**HF

(9) **Th**rombiculid (TRS) ⟶ (1) Rickettsial pox
(2) Scrub typhus

(10) Itch mite ⟶ Scabies

(11) Cyclops ⟶ Guinea fish tapeworm

Bio medical Waste (1998)

1. Human waste → Yellow
2. Animal → Yellow → Incineration Deep burial
3. Microbiology → Yellow
4. Sharps → Blue → Autoclaving with chemical
5. Cytotoxic drugs → Black → Landfill
6. Soiled dressings → Yellow → Incineration/deep burial
7. Solid waste → Blue → Autoclaving with chemical
8. Liquid waste → Disinfection → Drain
9. Ash → Black
10. Chemical waste → Black } Landfill

Yellow – 1, 2, 3, 6 ⟶ Incineration

Blue – 4, 7 ⟶ Disinfection autoclaving/Shredding

Black – 5, 9, 10 ⟶ Landfill

Red – 3, 6, 7

- Best way to remember categories of waste management-
  Imagine your medical career right from MBBS to PhD.....
  1st year – 1-anatomy (human wastes)
  2nd year – 2 -pharma-rabbits (animal wastes)
  3-microbiology (culture media)
  4th year – start with Surgery (Sharps)
  5-put antibiotics (medicines)
  6-do dressings (soiled dressings)
  7-put foleys (solid waste)
  8-clean with betadine n spirit (liquid waste)
  9-nothing left-Ash
  10-PhD-(radionuclide wastes)

FORENSIC MEDICINE

IPC	–	1860
CrPC	–	1973
IEA	–	1872
Consumer Protection Act (CPA)	–	1986
CPA + Doctors	–	1995
Euthanasia	–	2011
Organs Transplantation	–	1994
Torture (Tokyo)	–	1975
Maternity Benefit Act	–	1961
MTP	–	1971
NDPS	–	1985
Mental Health	–	1987
Lunacy	–	1912
Durhams	–	1954
Currens	–	1961
Indian Medical Council	–	1956
Juvenile Justice	–	2000

CrPC

174	–	Police inquest
175	–	Interrogation
176	–	Magistrate Inquest
154	–	FIR
61-69	–	Summons
53	–	Examination on request by IO
54	–	Request by accused
416	–	Pregnancy punishment 6 months post partum
39	–	Homicidal poisoning by private doctor

[I = Imprisonment]

IEA

114	–	Consent
112	–	Legitimate child
32	–	Dying declaration
154	–	Hostile witness

IPC

197	–	False medical certificate
44	–	(Injury) – Body, mind, reputation
82	–	Child act (<7 yrs)
83	–	Child (Imprisonment for 7-12 yrs)
84	–	Unsound (McNaughtens rule)
85	–	Responsibility of intoxicated person
86	–	Responsibility of voluntarily drunk person
88	–	Death after surgery
92	–	Act for good of a person without consent (emergency)
191	–	False evidence (perjury)
192	–	Fabricating false evidence
193	–	Punishment for perjury (imprisonment for 7 yrs)

228 A	–	Revealing name/Photo of rape victim (imprisonment for 2 yrs)
269	–	Negligent act causing spread of disease (imprisonment for 6 m)
294	–	Obscene acts and songs – exhibitionism (I-3 m)
300	–	Murder
302	–	Punishment for murder
304 A	–	Accidental/Negligence death/ Culpable homicide (I - 2 yrs)
304 B	–	Dowry death (Bride)
305	–	Abetment of suicide
306	–	Punishment of suicide
307	–	Murder attempt
309	–	Suicide attempt (I – 1 yr)
312-316	–	Criminal abortions (foeticide) – (I – 3 yrs)
317	–	Abandonement of child by parent (I – 7 yrs)
318	–	Concealment of birth by secret disposal (I – 2 yrs)
319	–	Hurt
320	–	Grevious hurt
323	–	Punishment for hurt (I – 1 yr)
325	–	Punishment for grevious hurt (I – 7 yrs)
354	–	Molestation (modesty of woman) (I – 2 yrs)
361	–	Kidnapping
363	–	Punishment for kidnapping (I – 7 yrs)
375	–	Rape
376	–	Punishment of rape (I – 7 yrs/ 10 yrs)
377	–	Unnatural sexual offences
497	–	Adultery (I – 5 yrs)
498 – A	–	Domestic violence (I – 3 yrs)
510	–	Misconduct by drunk (1 day)
328	–	Intoxicating of person
284	–	Containing drugs for self ⟶ Harm

- Quetelets rule → **BMI**
- Locards technique → **Poroscopy**
- Locards rule → **Transmission/FINDER method**
- Bertillon (Alfonso) → **Anthropometric system**
- Letulle method → **Total dissection (Tulle = Total)**
- Virchow method → **Individual organ + dissection**
- Ghon method → **(Ghon focus = focused) Organ wise dissection**
- Rokitansky method = insitu
- Nysten's rule → **Rigor not in all = Heart (Rule of 12)**
- Casper's dictum → **Air > water > earth (decomposition)**
- Rule of 12 → **Rigor mortis**
- Feather test + Mirror test + Windows test → **Death (Respiratory)**
- Magnus test + I cards + Diaphanous → **Death (CVS)**
- Kevorkian sign → **Trucking of blood (vessel) in retina**
- Kennedy phenomenon → **Bullet removal by surgery in MLC case**
- Langer's line → **Cleavage lines + Body creases**
- Hara kiri or seppuku → **Ritual Suicide with short sword (disembowelment)**
- Retraction balls → **Diffuse Axonal Inj**
- Dementia pugilistica → **Boxers/ SDH**
- Puppe's rule → **Sequence of bullets**
- Barr body → **Buccal mucosa (♀)**
- Davidson Body → **Sex chromatin in Neutrophil**
- Kregman's formula → **Bones → Sexing = 100%, Skeleton/Pelvis 95%**
- Palmers notation/ Hader UP/FDI Two digit → **Dental charting**

- Gustafsons method ⟶ Dentition [APSRTC]
- Hasse rule = age of fetus ⟶ $\sqrt{l}$ / d15 l = length
- Wilson's classification ⟶ Anatomical for burns.
- Dupuytren's classification ⟶ Rule of 9 (for burns)
- Hebra's classification ⟶ Infants (Burns in infants)
- Rule of 9 ⟶ Andrew Wallace
- Filigree/Lichtenberg flowers/Crocodile Skin syndrome – Flash Sparks, High voltage arcing currents, Lightening
- Tardieu's spot – Hanging – spots → Eyes
- Le facie sympathique = Hanging = Horner spots
- Lynching / Throttling / bansdola / Garrothing / Mugging smoothening/ Traumatic asphyxia/Choking/Gagging/ Burking/Overlying } Homicidal
- Hangman's # C_2/C_3 fracture ⟶ Judicial
- Emphysema aqueosum ⟶ Drowning
- Washer womans hands/cutis anserine ⟶ Drowing
- Paultauffs haemorrhage ⟶ Sub Pleural
  Gettler test
  Diatoms/ Acid digestion test
- Spaldings sign ⟶ Intrauterine death
- Roberts sign ⟶ Gas in blood vessels: IUD (earliest)
- Foderes test ⟶ Wt of lung = 30 ⟶ 60 gms.
- Plocquets test ⟶ Wt of lung to body
- Breslaus 2nd life test ⟶ Air in GIT
- Osborns no touch tech ⟶ Lungs
- Wredins test ⟶ Middle ear
- Hydrostatic test/Roygat's test ⟶ Float in water
- Caffey's syndrome ⟶ Battered baby

- Shaking baby ⟶ Infantile whiplash = SDH
- Munchausens ⟶ Mother with child with minor injuries
- Greek love ⟶ Sodomy
- Sin of Gomorrah ⟶ Sodomy
- Algolagnia ⟶ Sadism/Masochism
- Eonism ⟶ Transvestism
- Triolism ⟶ Sexual activity involving 3 people
- Mixoscopia ⟶ Voyeurism
- Bonnit syndrome ⟶ Chop it = penis is chopped.

Tests

Benzidine test ⟶ **Green** ⟶ **Blue**
Castle mayer test ⟶ **Phe**/test ⟶ **Pink** (Princess in castle)
Leucomalachite
Leucomalac green test
Koha O Kelly test = **Ortho** Toludine test
Luminal test
} H_2O_2

- Takayama test = **Hemochromogen** = **Pink**
- Teichman test = **Hemin crystal** = **Dark brown rhomboid**
- Spectro scopic Exam
- Precipitin test
- HAI test
- Gel diffusion test
- Double gel diffusion test
- Isoenzyme test
- Absorption elution
- Absorption inhibition
- Mixed agglutination

Semen

Invisible stains ⟶ UV light

Florence test ⟶ Choline

Barberio's test ⟶ Spermin

Acid phosphatase ⟶ Prostate (>100)

CPK test ⟶ Diagnostic (>400)

Most S/s ⟶ ELISA-SEMA or Direct microscopy

Toxicology

- Mac Ewans sign ⟶ Crackling pot sound
- Widmark's formula ⟶ Alcohol concentration in body.
- Marquis test ⟶ Morphine
- Meixner test ⟶ Aqua toxins
- Lee Jones test ⟶ Cyanide
- Marsh test/Reinsch test/AAS/NAA ⟶ Arsenic
- $AgNO_3$ test (Silver nitrate test) ⟶ Heavy metals
- Cavett / Kozelka / Hine test
- Gas liquid chromatography ⟶ Alcohol
- Oil of vitriol/Battery acid = H_2SO_4 = Perforation (Black) ⟶ Ca^{2+}/MgO_2
- Aqua fortis/Red spirit of Nitre = xHNO_3 = yellow (Xantho)
- Xanthoproteic reaction = HNO_3
- Muriatic acid/Spirit of salts = HCl = No Corrosion
- Acid of sugar = Oxalic acid crystals
- Phenol – Carbolic acid – Phenyl (–ve PBC) = White = Green urine = Ochronosis = Meth Hb
- Salicylic acid ⟶ + PBC ⟶ Resp. alkalosis ⟶ Alkaline diuresis / H. dialysis

Arsenic ⟶ Sankhiya

Arsenic trioxide (poison) white

Acute { MC S/S = **G**astroenteritis ⟵ Cholera
Velvety stomach
Garlic breath

– Chronic = (1) **B**rown skin

(2) **M**ilk rose complexion

(3) **R**ain drop pigmentation

(4) **H**yperkeratosis – Palms/Soles

(5) **H**yperkeratosis – Head

(6) **M**ees lines

(7) **M**ixed (Motor + Sensory loss) – Wrist/foot drop

(8) _~ TAO – Black foot dis

(9) **S**kin/Hair/Nails – are saved.

(10) **As** ⟶ ⊕ **M**ummification (also with antimony)
⊖ **P**utrefaction (delayed)

R_x ⟶ Acute – fresh Fe_2O_3 + BAL

Chronic – BAL

Lead

Ed TA = Plumbism

A ⟶ **A**naemia (↓ survival) heme/synthesis

B ⟶ **B**urtonian line

Basophilic stippling of RBC

C ⟶ **C**olic + Constipation = GIT + GUT

D ⟶ **D**rops = Foot + Wrist = Lead palsy (adult)

E ⟶ **E**ncephalopathy = Child

F ⟶ Facial pallor (earliest) Consistent

G ⟶ Gonadal dysfunction

H ⟶ Hypertension / Hallucination

I ⟶ Infertility

Blood > 25 mg/100

Urine > 0.25 mg/L

UrineALA > 5 mg

RBC ⟶ 200/mm^3

R_x EDTA – Ca^{2+}

+ BAL = Encephalopathy

+ B1 (Vitamin B_1) = CNS⊕

+ Calcium gluconate = Colic

Copper

Blue vitriol = Green vomitus
– Ptyalism

Chronic = Green lines on gums / hair / nail / sweat

R_x = K^+ Fe^+ cyanide

Mercury

A – Acrodynia – Pink disease = Swifts

B – Blowers shakes

C – Concussio mercuralis

D – Deposits = Mercuria lentis/Delusions

E – Eretheism (excited)

F – Fish = Minimata disease

G – Glass Blowers shakes

H – Hatter shakes

R_x N-Acetyl Penicillamine
BAL

Zinc

Zinc phosphide = Chr – **M**etal fumes fever = Resp. failure
– **M**alaria like
– **M**onday morning fever

Cadium

Cadium ⟶ **B**atteries = **A**nosmia
= Ca^{2+} Yellow teeth

Itai-Itai (Ouch-Ouch dis)
Osteomalacia
RT dysfunction
Painful bone # (F)

R_x = No BAL/EDTA

Phosphorous

Garlicky = Acute yellow atrophy liver
= Phossy jaw
R_x $KMnO_4$

Barium

$BaCO_3$ = Rodenticide + Arreflexia *
GIT + Cardiac + LMN
(hypokalemia)

Green urine = Carboluria
Green vomiting = Copper
Green lines on gums = Copper
Green skin/Sweat = Copper
Yellow skin = HNO_3
Black skin = H_2SO_4
Whitish skin = Hg / Carbolic acid
Yellow teeth = Cadmium
Gold urine = Amphetamines
Red tears = 'OP'
Brown skin = Arsenic

Crocodile skin = **H**igh voltage burns

Velvety stomach = **A**rsenic

Leathery stomach = **C**arbolic acid

Tissue paper intestine = **S**tarvation

Fatty necrosis of pancreas = **H**ypothermia

Fatty necrosis of liver = **P**hosphorous

Garlic odor = **A**s/Phosphorous/$ZnPO_4$

Rotten egg = H_2S

Bitter almond = **C**yanide

Fishy = $ZnPO_4$

Fruity = **E**thanol

Phenolic = **P**henol (carbolic acid)

Burnt rope ⟶ **C**annabis

Kerosene ⟶ **O**P/kerosene

Normal ⟶ **B**luish pink
⟶ Bluish purple

Cherry red ⟶ CO

Bright red ⟶ HCN = (Pink)/Burns/Cold

Red
- Deep brown = **P**hosphorous
- Coffee brown = **N**itrine / KCO_3/ KCl_3
- Grey brown = **C**lostridium perfringens (septic abortion)

Blue = $CuSO_4$

Deep blue = **A**niline/CO_2

Bluish green = H_2S

Asphyxial = **P**urple

Burns = **C**herry red

Black = **O**pium/Morphine

Storage

All poisons + Phenol ⟶ Saturated salt

Acid ⟶ Rectified spirit

Blood ⟶ Na citrate

Alcohol poison ⟶ Potassium oxalate, Sodium Flouride

Flouride poison ⟶ Potassium Oxalate, Sodium ciitrate

CO ⟶ Liq. Paraffin

Urine ⟶ Thymol

Uric acid (gout) ⟶ Alcohol

Vitreous/CSF ⟶ NaF

HPE ⟶ 10% Formalin

Virus ⟶ 50% Glycerine

Chloral hydrate ⟶ Knock out drops/Mickey Finn/Dry wine

Alcohol ⟶
- Absolute Alc(99.95%), Rectified(90%), Methylated (95+5%)
- McEwan's sign (pupils dilate)
- Widmarks formula

Cold turkey ⟶ Morphine withdrawal

Opium ⟶ Aphin ⟶ Heroin ⟶ Street heroin
= 10% Opium = Marquis test

Opium ⟶ Chasing the dragon

Datura = 10D = Road poison (Expand)

Cannabis = Indian : THC = Bhang/Majoon/Ganja/Charas
= Reefers or Pot = insanity = Hashish insanity
- Run amok

Cocaine ⟶ Snow lady/White lady/Crack = Cocaine + baking soda
- Magnan's
- Cocaine bugs (formication)
- Crack Baby
- Liquid lady (+ alcohol)
- Speed ball (i.v Cocaine + heroin)

– Agent of sure death = ALP
– Arandi = Ricinus = Most poisonous = Entire plant
– Jamal Gota = Croton = Crotin = 4-5/6 hrs = 20 drops
– Rati/Indian liquorice = Abrus = Abrin = Viperin = ①
– Artificial confusion = Semecarpus = Marking nut
= Calotropis procera = Madar ⟶ Cobras
= Plumbago

- Priapism ⟶ Cantha ridin = Spanish beetle
- Monks hood = Aconite = Sweet poison = Root = Hippus (Akon is Monk)

Solvent ⟶ Glue sniffing ⟶ Bagging/Huffing
- Love drug ⟶ MDA
- Ectasy ⟶ MDEA
- Cocaine ⟶ Speed
- Acid/white lightening ⟶ LSD
- Angel dust ⟶ Phenylcyclidine

Chelating agents

BAL ⟶ Used for all except Cd
EDTA ⟶ Pb ⟶ Except Hg
Pencillamine ⟶ Cu
Desforroxamine ⟶ Fe overload
Deferiprone ⟶ DOC for iron transfusion syndrome

Poison

Viper ⟶ Vessels (V-V)
Cobra ⟶ CNS(C-C)
Sea snake ⟶ Muscles ⟶ Skeletal (S-S)

MICROBIOLOGY

Motility of Bacteria

Darting	⟶	**V**ibrio cholerae
Stately	⟶	**C**lostridia
Tumbling	⟶	**L**isteria
Lashing	⟶	**B**orrelia (Lyme Lash)
Cork screw	⟶	**T**reponema
Gliding	⟶	Mycoplasma (glide on plasma)
Swarming	⟶	**P**roteus vulgaris
		Bacillus cereus
		Clostridium tetani

CAMP mediated toxins

A CAMP	⟶	**A**nthrax
B CAMP	⟶	**B**ordetella
C CAMP	⟶	**C**holera
D CAMP	⟶	-------
E CAMP	⟶	**E**. coli (ETEC)

Protein synthesis "PAEDS"

P	⟶	**P**seudomonas
A	⟶	**A**euriginosa
E	⟶	**E**HEC (VT)
D	⟶	**D**T(Diptheria)
S	⟶	**S**T(Shiga)

- Frie test ⟶ **L**GV
- Fried egg colonies ⟶ **M**ycoplasma/ Malassezia
- Fried egg appearance ⟶ **H**airy cell Leukemia
- Frog egg appearance ⟶ **C**orynebacterium diptheriae (in termedius)
- Daisy head ⟶ **C**orynebacterium diphtheria gravis
- String of pearls ⟶ **A**nthrax [Medusa head]
- Bisected pearls ⟶ **B**ordetella

TOXINS

Membrane Toxins

- AS 'O' (Streptolysin)
- Pneumolysin
- Hemolysin
- Listeriolysin
- Lecithinase

Super antigens

- V β (TCR)
- Staph = TSST/Ex T/Entero
- Strep = Exo A/B/C (pyro)
- Virus = EBV/CMV/HIV/rabies
- Fungal = Malassezia furfur

Entero toxins

- CT
- EC (LT)
- ST
- SLT (EHEC)

Transport

Strepto	– Pikes (S-pike!)
Neisseria	– Amie/Stuarts/Charcoal/JEMBEC)
Vibrio	– VR/Cary Blair/Sea water
Shigella	– Buffered Glycerol Saline
Bordetella	– Modified Stuart (Casmino acid) Mischelow's charcoal Dacron / Ca. alginate

Media

	D	S(Specific)	E(Enriched)
Salmonella	Hektoen	–	–
Shigella	– Xylose – Lysine deoxycholate – Deoxycholate citrate – Eosin Methylene Blue – Mac Conkey	SS agar Wilson Blair	–
Vibrio – alkaline	–	TCBS Mansours GTTA Alkaline bile salt	Alkaline peptone water (enriched)
S. aureus	–	Mannitol salt	–
Streptococus	–	Crystal Violet	–
Neisseria		Thayer Martin Mod New York	Chocolate
Coryne bacterium diptheria	Potassium Tellurite (DPT!)	Loefflers	Loefflers
B.anthracis		PLET	
B.cereus		MYPA	
Anaerobes			Thioglycolate RCM
Mycoplasma		PPLO	

Listeria		PALCAM	
Pseudomonas		Cetrimid kings	
Hemophilus (Lovely heart Filled with Chocolate			Blood Chocolate Levinthals Fildes
Bordetella		Lacey's	Regan Low Bordet Gengou
Brucella		Casteneda	
Myco TB		Lewenstein Jensen Dorset	
Leptospira		EMJH/Fletcher/ Koroff	(MAT)
Campylobacter		Campy BAP/ Skirrow	
Legionella		BYCE(leg byes!)	
Borrelia Burgdoferi (LYME)		Kelly's (BSK)	

Growth Factors

- Sterols/Cholesterol/ Purines/Pyrimidines → Mycoplasma
- Cysteine → Brucella, Pasteurella/ Francisella/ Legionella
- Factor X/V (NAD) → Hib
- B6 → Strep. abiotrophia
- Tryptophan → Salmonella

Vaccines

Live natural = Cowpox

Live attenuated = BCG, OPV, OKA, OTV, Mumps, Measles, Rubella

Toxoid = DT, TT

Killed → Pertussis, Killed polio, Plague, Cholera, Rabies, Influenza, Hepa, JE

Subunit → HBV, Hib, Pneumo, Meningo, Apertures, Vi (S. typhi)

⇒ Urease producing organisms → PUNCH-K

- Proteus
- Ureaplasma
- Nocardia
- Corynebacterium
- H.pylori
- Klebsiella

OPHTHALMOLOGY

- Inclusion conjunctivitis ⟶ Chlamydiae
- Phlyctenular conjunctivitis ⟶ TB = rare
- Fascicular ulcer = TB
- Catarrhal ulcer ⟶ Staphylococcal

} (Hypersensitivity)

- Spring catarrh: Lordaceous discharge
  Ropy discharge
  Shield ulcer
  Papillary projections
  Cobble stone appearance
  Horner Tranta spots
  Pseudo gerontoxon
- Trachoma ⟶ Mac Callan classification
  Sago grain conjunctival follicles
  Stellate scars
  Arlt's line ⟶ Upper scar
  Herbert Pits (Pannus) (Bulbar conjunctiva)
  S-shaped ⟶ Upper lid/ Strategy
- Keratoconus ⟶ AR.
  B/L ⟶ Myopia
  - Scissoring reflex
  - Oil droplet reflex
  - Yawning reflex
  - Window reflex
  - Keratometry
  - Placido disc
  - Vogt's lines
  - Munsen sign
  - Fleischer ring
  - Acute hydrops

- Keratometry → Curvature
  → Power
- Pachymetry → Corneal thickness
- Scleral scatter → Total internal Reflection – Edema
- Descemets membrane (DM) → Schwalbe's line
  → Post embryotoxon (DM)
  → Hassal Henle warts → Peripheral tears (DM)

Posterior Corneal dystro- → Cornea guttata
Posterior Corneal dystro- → Beaten metal appearance
} Central tears (DM)

- Specular microscope = Endothelium
- Cornea = Fe^{+2} → Kerato conus → Fleischer ring
  Old age → Hudson line
  Pterygium → Stocker's line
  Bleb → Ferry's line
  Cu^{+2} → Wilson's → KF ring
  Melanin → Krukenberg spindle
- Ground glass → Rapid corneal perforation → Pseudomonas
  → Dangerous Hypopyon ulcer → Pneumococcus
  → Ulcus serpens → Pneumococcus
- MCC of lens users → Pseudomonas (Worldwide)
  → Acanthoemeba (India)

  R_x : Propamidine → IOC = Calcoflour White
- Nebula > Macula > Leucoma
- Fungal ulcer → Ulcer + Gray white + dirty yellow feathery + Satellite

  R_x: Natamycin

- Dendritic ulcer/Geogrpahic Ulcer ⟶ HSV
- Disciform keratitis ⟶ HSV (Hypersensitivity)
- Wessley immune ring ⟶ HSV
- Hutchinson sign ⟶ Nasociliary Nerve
- Nummular kerato uveitis ⟶ Herpes Zoster
- Salmon patch ⟶ Interstitial keratitis
- Ghost vessels (Granulomatous) ⟶ TB/ Leprosy/ (Sarcoidosis)
- Neuro Paralytic ⟶ Facial nerve
- Neuro tropic ⟶ Trigeminal nerve
- Dellen ⟶ Thin peripheral cornea
- Catarhal ulcer ⟶ Hypersensitivity to staphylococcus
- Mooren's ulcer ⟶ (1) Over hanging edge
  (2) Only peripheral ulcer with ↓ visual acuity
  R_x: Only ulcer in which corticosteroids & immuno suppressants are used
- Terriens ⟶ Terrace = Upper
- MC Carey Kauffman ⟶ MK medium = 3-4 days for corneal storage
- Band shaped keratopathy ⟶ Ca^{+2}
- Wilson's ⟶ KF ring + Green sunflower cataract
- Cornea verticillata ⟶ Vortex keratopathy
  Golden whorls = Fabry's disease
- Enlarged corneal nerves (LINK) = { Leprosy; Idiopathic; Neuro fibromatosis; Kerato conus }
- Corneal xerosis (X_2) ⟶ Peau d orange + Tree bark appearance

- XF → Uyemura spots
- Seleromalacia perforans → RA+ve – Scleritis (Rheumatoid Arthritis)
- Zonules of Zinn → Suspensory ligament of lens
- Weigert ligament → Ligament Hyaloid capsule
- Cloquet's canal → 1^0 vitreous remnant
- Mittendorf dot → Posterior capsular cataract
- Blue dot [Cataracta cerulens] → Punctate cataract
- Cataracta centralis pulvurulenta → Embryonal cataract
- Cataracta brunescens → Senile nuclear cataract
- Rider's → Zonular cataract
- Rubella → Dense pearly appearance
  Salt & pepper appearance
- Cortical →
  - Incipient → Monocular diplopia
  - Intumuscent → Phacomorphic glaucoma
  - Mature → x (nothing)
  - Hyper mature →
    - Sclerotic
    - Liquid – (Morgagnian)

- Rosette cataract → Trauma
- Vossius ring → Concussion Injury
- Snow flake cataract → Diabetes

→ Fluctuating →
- (1) Cataract
- (2) Refractive error
- (3) Vision

} DM = sorbitol

- Oil droplet cataract → Galactosemia
- Green sunflower → Wilson's
- Stellate cataract → CPZ (Chlorpromazine)
- Bread crumb appearance, Polychromatic lusture → PSCC
- Myotonic dystrophy → Christmas tree appearance
- Down's syndrome → Brushfield spots
- ALport's → Anterior Lenticonus
- Lowe's → Posterior lenticonus
- Weil Marchesani → Microspherical/Mesodermal

SRK II formula

- (D) IOL = A – (2.4L + 0.9K)
  If L ↑ (myopia) – D ↑
  If L ↑ (hypermetropia) – D ↑
  D = power
  L = Length of eye ball
  K = Constant
- ICCE → Corneal endodystrophy
  → Striate keratopathy
- MCC lens in phaco – **Acrylic** (foldable)
- **Cataract Surgery: Child:** B/L → Complete → Surgery
  Incomplete → Spectales
  U/L → Total → Surgery at 6 weeks
  Partial → Surgery at 6 months
- Expulsive haemorrhage → Short Posterior corneal artries
  Wound leak → Siedel Test
- Post op → Keratopathy → Striate keratopathy
  Endopthalmitis → S. Epidermidis (Early)
  P. acnes (late)
- Late post op (1) CME → Irvine Gass syndrome

(2) Cataract ⟶ Elschnig's pearls
Sommering ring

(3) UGH syndrome ⟶ Uveitis + Glaucoma + Hyphaema

(4) Sunset syndrome ⟶ Inferior subluxation of lens

Ciliary

- Color of iris ⟶ Anterior limiting membrane
  Most vascular ⟶ Ciliary processes
  Mc site of AH (Ant. Haemorrhage) ⟶ Non pigment epithelial cells

– attachment ⟶ Posterior = Bruch's membrane (RPE)
attachment ⟶ Anterior = Lamina fusca

Uveitis

Anterior:
- Granulomatous ⟶ Mutton fat KP's (keratin precipitates)
- Anterior uveitis ⟶ KP's/Arlt' (triangle)
- Iris nodules ⟶ Small ⟶ (Koeppe's) – TB
  ⟶ Large ⟶ Busaca's
  ⟶ Sarcoid/Leprosy
- Iris atrophy ⟶ Moth eaten appearance (H zoster)
- Seclusio pupillae ⟶ Synechiae (Bombe)
- Occlusio pupillae ⟶ Membranous occlusion

- **Posterior:** Floaters ⟶ Vitreous opacities ⟶ Snow ball ⟶ Candidiasis/Sarcoidosis ⟶ Snow banking ⟶ pars planitis
- MC orthopedic condition with uveitis ⟶ RA (Rh-arthritis)
- Kerato derma blenorrhagica ⟶ Reiter's Syndrome
  – Conjunctivitis
  – Urethritis
  – Arthritis

- Juvenile RA ⟶ Stills (uveitis) ⟶ Pauci articular
  Band keratopathy
- Retinal periphlebitis in sarcoid ⟶ Candle wax drippings
- Sarcoid nodules (inferior) ⟶ Lander's sign
- Recurrent non Granulomatous iridocyclitis
  ⟶ Behcet's syndrome (B5)
- VKH syndrome (Vertigo + Kernigs + Hairfall) ⟶
  Granulomatous-exudative RD
- Syphilis ⟶ (1) Salt pepper fundus (congenital syphilis)
  (2) Iris roseola = red vessels = 1/3 of iris
  (3) Papillitis (hallmark)
  (4) Ring scotoma (bone spicules)
- Leprosy ⟶ Iris pearls (necklace) ⟶ Pupil margin
  Bacilli (macro) + Busaca's nodules
- Toxoplasmosis ⟶ Retino choroiditis ⟶ Scars
  ⟶ Cysts
  ⟶ 'Head light in fog'*
  ⟶ Calcified cysts
- Sympathetic opthalmitis ⟶ (1) 1st Symptom ⟶
  Difficulty in near vision (LOA)
  (2) 1st sign ⟶ Retrolental flare/Koeppes/MF
  Granulomatous – 2 weeks – 3 months.
  R_x: i.v. steroids
  (3) fundus ⟶ Dalen Fuch's nodules
  RPE Bruchs
- Fuch's uveitis ⟶ Stellate KP's
  ⟶ Gonioscopy ⟶ Neovascularisation
  ⟶ Amsler's sign

- AIDS ⟶ Kaposi's sarcoma ⟶ Red mass ⟶ Lower fornix

  CMV retinitis ⟶ Sauce & cheese fundus

  Cotton wool spots ⟶ MC & earliest ocular lesion

  R_x: Ganciclovir

- Eale's disease ⟶ Idio venous inflamation ⟶ NVD leading to Neovascular Glaucoma (NVG) leading to Retinal Haemorrhage (RH) and Vitreous Haemorrhage (VH)

  ⟶ Seen in young present with sudden decrease in visual acuity

  ⟶ treatment by Pan Retianl Photocoagulation (PRP) and pars plana vitrectomy (PPV)

- MCC of Vitreous haemorrhage ⟶ Old ⟶ Diabetes mellitus
  Young ⟶ Eale's disease

- Melanoma ⟶ MC 1^0 Intra ocular tumour ⟶ Lipofuschin positive

  ⟶ Brachy R_x / EBRT (macula) / TPTT (fovea)

  ⟶ Callender classification = Mixed type is most common

Retina

- RPE ⟶ Macrophagic
- Rods ⟶ Green color
- Rods are present in fovea and absent in foveola.
- Rods are maximum in 20° (20 degrees to fovea)
- Outer Plexiform layer ⟶ Fibres of Muller and Henle's Layer ⟶ CME
- Optic disc ⟶ Blind spot
- Peripheral retina ⟶ Indirect opthalmoscopy/ Goldmann's/Gonioscopy

  Rhegma ⟶ Lattice (young myopes)/Retinoschisis (I/T) (Infero Temporal.)

(1) Rhegmatogenous RD ⟶ (1) **W**eiss Ring ⟶ Solitary ring like vitreous opacity

(2) **B**lack curtain + Convex

(2) Tractional RD ⟶ **Y**oung - Eale's

Old ⟶ Diabetic Retinopathy } Concave

(3) Exudative RD ⟶ **M**elanoma/V KH syndrome

⟶ '**S**hifting fluid'

Diabetes Melitus

- Background retinopathy ⟶ Micro aneurysm
  ⟶ Dotblot haemorrhages
  ⟶ Hard exudates
  ⟶ Cystoid macular Edema.
- Maculpathy ⟶ focal ⟶ R_x is Argon laser
  ⟶ diffuse ⟶ R_x is Avastin
- Pre-proliferative ⟶ Cotton wool spots
  ⟶ IRMA
- Proliferative ⟶ Neovascularisation of disc (NVD)
  ⟶ Vitreous Haemorrhage.
- Overall R_x is 1) Pars plana vitrectomy (PPV)
  2) Pan Retinal Photocoagulation [PRP]
  3) I.V. Bevacizumab.

Hypertension

Grade-1 – Generalised Attenuation [GA]

Grade-2 – GA + FA [Focal Attenuation]

Grade-3 – GA + FA + Cotton wool spots

Grade-4 – Grade – 3 + Papilledema.

Hypertensive Arteriosclerosis

Grade-1 ⟶ Broad arteriolar reflex

Grade-2 ⟶ G-1 + SALU's sign.

Grade-3 ⟶ G-2 + Bonnet's sign + copper wiring

Grade-4 ⟶ G-3 + Silver wiring

Ischemic choroid infarcts ⟶ Elschings spots.

- CRVO ⟶ 100 day Gaucoma
  Splashed tomato/ Blood thunder appearance

  CRAO ⟶ CHERRY RED spot
  ⟶ Cattle track sign

ROP ⟶ < 32 weeks (temporal retina)

- Retinopathy of Prematurity – **P**lus disease (veins + arterioles)
  Laser is treatment (PRP)
- Macula testing ⟶ **M**etamorphopsia
  – Direct slit lamp biomicroscopy
  – **A**msler Grid
  – **B**lue Field Flying Corpuscle
  – 2 Light discrimination test
  – **L**ASER Interferometry
  – **P**otential Activity Meter (PAM)

ARMD ⟶ **DRUSEN** ⟶ R_x with Ranibizumab/ Bevacizumab

Disciform scar ⟶ **A**dvanced disease

R_x TPTT/PDT (Trans pupillary thermo therapy)
(Photo Dynamic Therapy)

- **Central Serous Retinopathy:** Elevated retina (ring reflex)
  Smoke stacks (mushroom pattern)
  Ink blot (enlarging dot)

- Angiod streaks ⟶ Tears in Bruch's membrane.
- Cystoid Macular Edema ⟶ Henle's layer
  Flower petal appearance
  Irvine Gass syndrome
- Flourscein angio : RPE
  : Retinal (RPE window defect)
  (1) CSR
  (2) Papilloedema
  (3) Neovascularisation
- Indocyanin Green for Chroidal
- Chloroquine ⟶ Bull's eye Maculo
- Electro Retino (ERG) ⟶ RP (Retinitis Pigmentosa)
  EOG ⟶ Best's disease
  EOG ⟶ Arden's Ratio
- (Electro Ocula Gram)

RETINITIS PIGMENTOSA

Sporadic ⟶ (1) Bone spicule pigmentation
(2) Arteriolar attenuation
(3) Waxy pallor disc
(4) Golden Metallic tapetal reflex.

– Female carrier – Tunnel vision
– RP sine pigmento – RP albesence

- Best's disease ⟶ AD (egg yolk/sun side up)
- Stargardt's ⟶ AR ⟶ Child ⟶ Central vision
  (Adult ⟶ Fundus flamiculatus)

• **CHERRY RED SPOT:**	**Amaurotic cat eye**
(1) Tay sachs	(1) Retino blastoma
(2) Niemann pick	(2) Cataract
(3) CRAO/commotio/retinae	(3) PHPV
(4) GM-1 Gangliosidosis	(4) ROP
(5) Metachromatic leukodys+trophy	(5) Retinal dysplasia
(6) Faber's disease	(6) Retinal coat's disease
(7) Gold berg's	(7) Retinal astrocytoma
(8) Gaucher's	(8) Toxocariasis

Retino blastoma → Sporadic → 18 months

Knudson's → $13q^{14}$

Leukocoria → MC sign

Calcifications → 'Cottage cheese'

Spread → ON (Optic Nerve)

- Source → Photo receptor cells
- Diff → Flexner/
  Wintersteiner
  Homer Wright Rosettes
- Associated with → Osteosarcoma knee

  Triradial RB → B/L RB + Pinealoblastoma

  Not associated with → Micropthalmos
- PHPV → Micropthalmos
- Toxo → Granuloma (yellow)
- Coat's → Leuko coria
- Sickling → Sea Fan / cork screwing
- Tuberous sclerosis → Bourneville's disease

  (Astrocytoma) → Adenoma sebaceum

  Brain retarded

  Convulsions

MC → intra ocular foreign body → Iron

MC → intra ocular foreign body → Child → RB

MC → intra ocular foreign body → Adult → Melanoma

MC → Extra Ocular → Rhabdo Myosarcoma.

MC → Lid → BCC (lower)

MC → Cystic lesion → Cysticercosis

MC → Proptosis → Cavernous hemangioma

- Uveitis → Glucoma → Inflammatory
  Hypertensive → Posnan Schlosmann syndrome
- Khaki color hyphaema → Ghost cells
- Candle Stripe → Pseudohypopyon = RBC + Ghost
- Krukenberg Spindle → Pigmentary glaucoma
- Hyphaema → Fresh – red (Rebleed)
  ↓ Rebleed → Eight ball (8th)
  Cannon ball
  Black ball (black)

Lacrimal

- Common canaliculus → Valve of Rosenmuller
- NLD = Inferior meatus → Valve of Hasner
- Schirmer's test → Whatmann's filter paper '10' mm
- Jones dye test → Test for LD (Lacrimal Duct)
- Tear's secreting nerve → GSPN (Greater superficial petrosal Nerve)
- All lacrimal glands = Meibomian } Sebaceous
  ↓ Zeis
  – Glands of Krause
  – Glands of wolfring → Moll → Sweat

- Mucolytic → 5% Acetyl cysteine
- Dry eye → Cyclosporine
- Dry mouth → Bromhexine
- Rose bengal → Mucin
- Flourescein → Corneal defects

Jones test → LD test
Jones operations → Entropion
Jones criteria → Rheumatic fever

- Rhabdomyosarcoma → Embryonal = MC
  Alveolar = Malignant
  Pleomorphic = Best

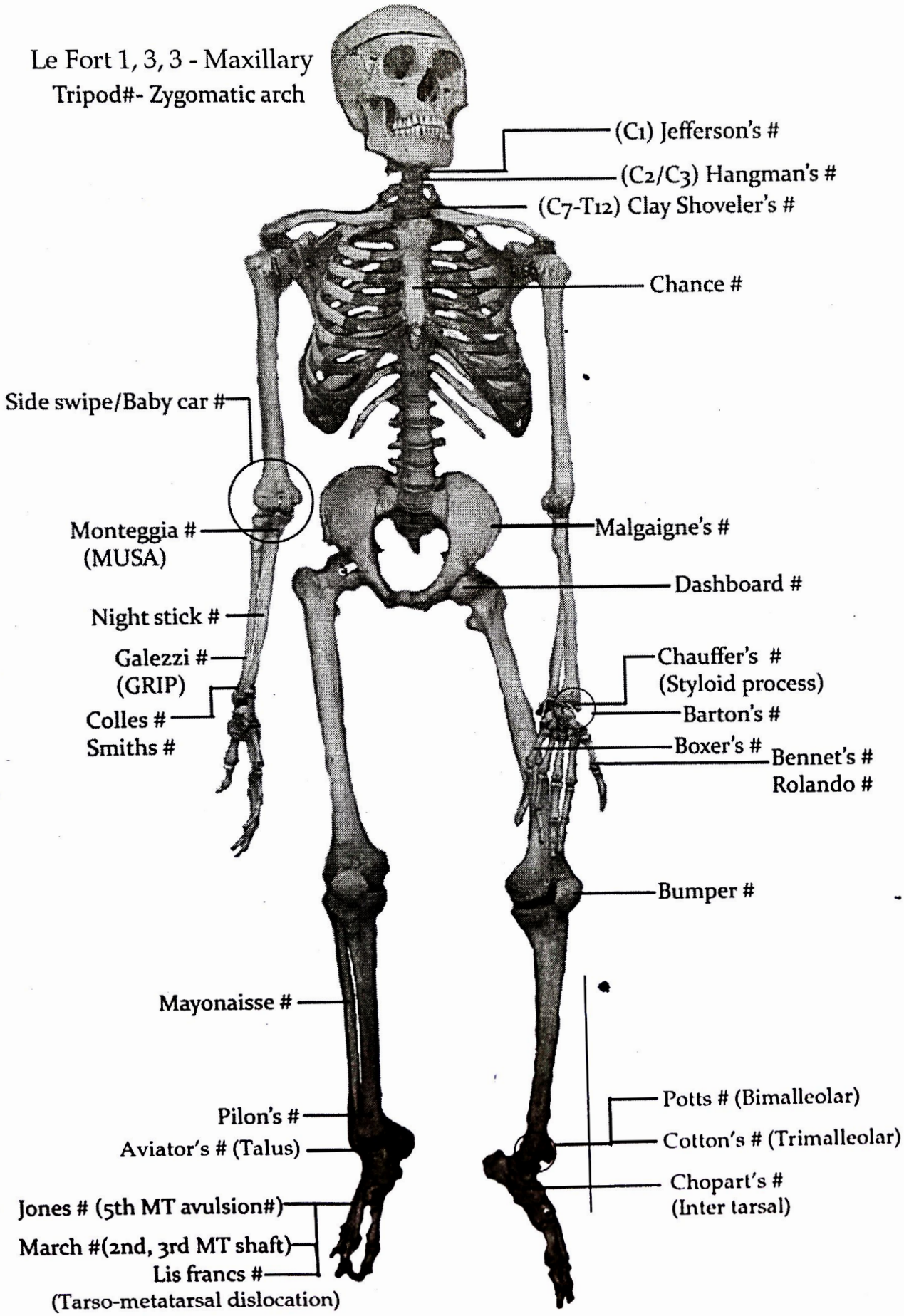
Glaucoma: Roennes step, Siedel scotoma, Bjerrum's, Double arcuate } (Visual Field changes)

- Plateau iris → PACG
  Vogt's triad → PACG
  } (1) Iris sector atrophy
  (2) Corneal endothelial pigmentation
  (3) Anterior lens – Glaucom flecken
- Dusk blindness → POAG
- Provocative tests:
  PACG → Dark room prone test
  PAOG → Water drinking test
- **HAAB's Striae** → Congenital glaucoma – Descemet's membrane defects
- Buphthalmos → >12 mm cornea

R_x – Congenital glaucoma = R_x Trabeculoplasty + MitoMycinC [MMC]

ORTHOPEDICS

Named Fractures



Vertebral:
- Jeffersons (C_1)
- Hangman (C_2/ C_3)
- Clay shovellers (C_7 - T_{12})
- Chance #
- Malgagne's #

Foot:
- Pott's #
- Cottons #
- Choparts #
- Aviators #
- Jones #
- March #
- Lis francs #

UL:
- Baby car #
- Monteggia (MUSA)
- Galeazzi (GRIP)
- Night stick #
- Colle's # : Poutteau's
- Smith #
- Bartons
- Chauffers #
- Rolando's
- Bennets
- Boxer's

LL:
- Dash board #
- Malgagnies #
- Bumper #
- Pilon #
- Massonaise's #

CASTS:
- Hanging cast / 'U' cast → **Humerus**
- Colles cast → **Radial (distal)**
- Hip spica → **Femur**
- PTB brace [Patellar Tendon Bearing] → **Tibia**
- Philadelphia brace → **Cervical collar**
- Minerva cast → **Cervical spine fracture**
- Frogleg/Lorenz/Batchelor → **CDH**
- Shake hand cast → **Colles fracture**
- Glass holding cast → **Scaphoid fracture**
- Risser cast → **Scoliosis**
- Turn buckle → **Scoliosis**

Splints:

Dennis Brown	→ CTEV
Thomas splint	→ Female #
Gallows traction	→ Female # (<2 yrs)
Russel traction	→ Knee
Bucks traction	→ Skin traction
Cock up splint	→ Radial nerve
Knuckle bender	→ Ulnar nerve
Aeroplane splint	→ Erb's = C5-C6
Shoulder abduction splint	→ Axillary nerve
Toe rising/foot drop splint	→ CPN
Von Rosen/ Pav lik	→ CDH
Cramer wire	→ Emergency
Bohler Braun	→ Universal [fracture femur]
Aluminium	→ Fingers
Volkmann's	→ VIC
SOMI brace	→ Cervical spine
Ashe/ Taylors	→ D/L
Milwaukee, Boston	→ Scoliosis
Figure of eight splint	→ Medial two thirds clavicle
Velpeau bandage	→ Shoulder injuries

Osteonecroses: Osteochondritis

Crushing →	Head of femur	→ Perthes disease
	Head of MetaTarsal	→ Freiberg (MTF)
	Navicular	→ Kohler, [Brasil ford disease]
	Lunate	→ Kien bock [LUKi]
	Capitulum	→ Panner [captain panic]
	Vertebrae [vertical]	→ Scheurmann
	Body	→ Calve's disease

Pulling: ⟶ Tibial ⟶ OS good Shlatter d/s [TOSS]

Calcaneus ⟶ Sever's disease

Splitting: ⟶ Osteo chondeosis dessicans * Knee

Classifications

Gustila Anderson	⟶	Open #
Gartland's	⟶	Supro condylar # Humerus
Salter harris	⟶	Epiphyseal #
Frykmann's	⟶	Colle's #
Garden's/Pauwells	⟶	# NF
Boyd/ Griffith	⟶	IT [Inter Trochanteric Fracture]
Lauge/ Hansens	⟶	Pott's #
Dennis Weber	⟶	Bony spinal #
Enneking's	⟶	Tumors
Ahlbach's	⟶	Osteoporosis
Neers	⟶	# shaft of humerus
Sneddon's	⟶	Nerve injuries
Bowmann's angle	⟶	SC # of H
Bohler's angle	⟶	Calcaneus (40) # (40)
Kite's angle	⟶	CTEV
Q angle	⟶	Patellar overload syndrome

Procedures

Hill sach's lesion	⟶	Humerus
Bankart's lesion	⟶	Ant. Inf. Glenoid (BAIG)
Gun stock deformity	⟶	Supra Condylar # Humerus
Darrachs procedure	⟶	Colles = malunion
French osteotomy	⟶	Gunstock def.
Mc. Murray osteotomy	⟶	Neck of Femur.

Meyers operation	→	Neck of Femur.
Salter's/Chiaris/ Pemberton's osteomy	→	CDH (Congenital Dislocation of Hip).
Turco's/Durgers/Evan's/ Ilizarov/ Triple arthrodesis	→	CTEV
Jones procedure	→	Tendon traction (=) Radial nerve palsy
Allis method	→	Dislocation of hip

Deformities

Sheperds crook/ Leontiasis ossea	→	Fibrous dysplasia
Nurse maid elbow	→	Prepatellar bursitis
Policeman/waiter tip	→	Erb's
Clergyman knee	→	Infrapatellar bursitis
Dinner fork	→	Colles #
Garden spade	→	Smith#
Triple deformity	→	RA/TB/Polio [T-RiPle]
Gun stock	→	SC # Humerus

Intra medullary Nails

Neck of femur	→	SP (Smith Petersen)
IT	→	E-Ender's G Gamma
Shaft	→	K – Kuntschner's nail GK nail
Tibial #	→	V nail
Tal walkar's	→	Both bones Forearm (2 swords)
Rush nail	→	General use
Hart shill	→	Spine

Plates

DCP	→	Any long bone (Transvese/oblique)
Neutralisation plate	→	Comminuted #
Buttress plate	→	Condylar # tibia
SP nail plate	→	IT #
DHS	→	IT #
Condylar blade plate	→	Femur condyle #
'T' plate	→	Tibial condylar #
Spoon plate	→	Lower tibia end
Cobra plate	→	Hip arthrodesis
Steel wire	→	# Patella
K – wire	→	Small bones

Tests

Ant. Dislocation	Post. D	Inferior D	Rotator cuff
Apprehension	Jerk test	Sulcus test	Lift off
Bailey Hamilton	Clunk		Int. Rotation/ Lag sign
Crank	Jahnkes		Belly press test
Callaway	Cricumduction	Rotator	Drop sign
Dugas	Push pull		ER stress test
EW's (Andrews)			ER lag sign test
Fulerum			Hawkins Kennedy
Jobes			Jobes-Supraspinatustest
			Gerber test
			Speed test
Shift/Load test			Yergason supinator test
Shoulder Lachman			
Shoulder Drawer			

Median Nerve: Pointing index
Pen test
Benediction of hand
Opponens (Ochsner clasp)
Labourer's nerve
Ape thumb
CTS

ULNAR: musician's Nerve

A Adductor pollicis
B Book test
C Card test
D Adductor pollicis
E Egawas test
F Froment sign

Radial N:
Wrist Thumb Forearm (WTF) - Radial
Thumb Forearm (TF) - PIN

Common Peroneal (DPN) → Foot drop

LCN (Lateral cutaneous nerve) → Meralgia paraesthetica
(Mc Roberts) manoevure injury

Erbs → Policeman deformity

N. of bell → Winging of scapula

Polio → FABER Flexion Abduction
External Rotation.

Traction:
C-spine → Head Hatter/ crutchfield
SC # Humerus → Dunlop's/Smith's
FA → Metacarpal
HTP → Agnes Hunt
Well Leg
Femur → < 2 yrs – Gallow's
Bryant's
– Child – 90^0-90^0
– Adult – Perkin's
Buck's → Skin
Ankle → Calcaneal

RESPIRATORY MEDICINE

- Criteria for ARDS: A: Alveolar Inflitrates
  R: Ratio – $P_aO_2/F_iO_2 < 200$
  D: Decreased pulmonary compliance
  S: Shunt = PCWP < 18
- Ratio of ⟶ P_aO_2/F_iO_2 is < 200 Implies ⟶ ARDS
  P_aO_2/F_iO_2 is < 300 Implies ⟶ Acute Lung Injury (ALI)
  MC cause of ARDS ⟶ Sepsis
  MC cause of death in ARDS ⟶ Respiratory Failure
  MC cause of predictor of ARDS ⟶ 3 pre pro Collagen
- Miliary tuberculosis is due to reactivation of both $1^0/2^0$ or both
- MC lymph node in 1^0TB (PTB) ⟶ Paratracheal + Tracheo broncial (PTB)
- Resistant TB is the one ⟶ No features on chest X-ray/ only culture for 3 months/ smear [5 months clinical features]
- Eosinophilic granuloma has no eosinophils
- There are no cavities in ABPA (Allergic Broncho Pulmonary Aspergillosis)

Features of ABPA

A - Asthma

B - Bronchiectasis

C - Chest infiltrates

D - Detection of fungus is unsuccessful

E - Eosinophilia / IgE

F – Flare response / Fleating opacities

G – IgG

H – Humoral antigens / hemoptysis

I – Infiltrates

- Normal levels of IgE + diffuse infiltrates + No eosinophils is suggestive of Allergic Alveolitis.
- IgE is elevated in asthma ⟶ ABPA
- Non IgE – Allergic reaction ⟶ Allergic Alveolitis
- MC cause of lobar pneumonia ⟶ Pneumococcus
- MC cause of Hospital acquired pneumonia ⟶ G-ve Infections
- MCC ventilator associated pneumonia ⟶ Pseudomonas aeruginosa
- MC cause of empyema ⟶ Pneumococcus, TB
- Legionella ⟶ Causes Pontiac fever
  ⟶ Cultured in BYCE medium
  R_x: Azithromycin
- In ARDS ⟶ PCWP is never increased
- Pulmonary Thrombo Embolism:
  - MC source ⟶ Calf muscles (DVT)
  - MC vessel ⟶ Pelvic > Ilio – femoral
  - Screening ⟶ D-Dimer levels
  - IOC ⟶ CT angiography
  - Gold standard ⟶ Pulmonary angiography
- COPD is productive cough for 3 months in 2 consecutive years
  - No hemoptysis in COPD
- MCC of COPD ⟶ Smoking
- Copious productive sputum ⟶ Bronchiectasis (Tram – tracking Tree in bud appearance signet ring appearance)
- Pneumonia alba is due to ⟶ Treponema
- Severity of pneumonia is when ⟶ Systolic BP < 90 mmHg & RR < 30

- Cryptogenic Obliterative Organizing Pneumonia: (COOP)
  C : Corticosteroids
  O : Organising = restrictive
  P : Pulmonary opacities (migratory)
- Pleural calcifications/pleural carcinoma is due to Asbestos
  MC cancer associated with Asbestos ⟶ Lung cancer
  Most specific cancer associated with asbestos ⟶ Mesothelioma
  MC extra pulmonary carcinoma associated with asbestos ⟶ Stomach cancer
- Bronchietasis and collapse of lung in a chronic asthmatic is due to ⟶ **ABPA**
- Charlot Leyden crystals ⟶ Seen in Asthma
  Curschman spirals ⟶ Asthma
  Creola bodies ⟶ Asthma
- Metered dose inhalers (MDI) ⟶ Chloroflouro carbons (CFC)
- Short acting β – agonist (SABA) ⟶ Salbumol – increases FEV_1
- Caseating granulomas ⟶ TB
- Non caseating granulomas ⟶ Sarcoidoisis
- Granulomas never seen in ⟶ HIV
- No eosinophilia in ⟶ Hypersensitivity pneumonitis (HP)
- MC virus causing pneumonia in children < 1 week ⟶ RSV (Respiratory Syntial Virus)Treatment:
  R_x for RSV ⟶ Ribavirin
- Chronic fibrosing mediastinitis ⟶
  1. TB
  2. Histoplasmosis (Darling Disease)
  3. Sarcoidosis
- MC source of hemoptysis in TB: Bronchial artery
- Rasmussen aneurysm ⟶ Seen in TB ⟶ from Pulmonary artery

PTB
Ⓟ+Ⓑ → MC source of hemoptysis in TB is Bronchial artery
↓
Rasmussen aneurysm

- Emphysema:

Ⓒentriacinar	Ⓟan acinar	Ⓓistal
Commonest	Proteinase (α_1 – AT)	Distal
Cigarette		Dilated cysts
Chronic bronchitis)	Pan = total	Death is Sp.PTx
CUP (Upper)	Posterior = Lower	
Central		

Cancers

Adeno: Most common
Non smoker
Young women
Peripheral
Lung to lung spread
Trosseau syndrome
Pan Coast/s, **Scar** carcinoma

SquamousMC Indian
Cigarettes
Central
Cavitates
Ca^{+2} (calcification)
Cool (best prognosis)

Small Cell Lung Ca (SCLC): Aggressive
Central
Worst prognosis
Best response to CT/RT (chemoradio)
Least clubbing
Metastatic
Cushing's
SVC obstruction (SVC syndrome)

- MC site of metastasis of lung ⟶ Brain
- MC endocrine gland ⟶ Adrenals
- MC symptom of lung Ca ⟶ Cough
- MC paraneoplastic manifestation ⟶ Hypercalcemia
- MC paraneoplastic syndrome ⟶ Cushing's disease

Respiratory failure Type I ⟶ ↓ PaO_2 – Normal PCO_2

MC symptom of Interstial lung disease ⟶ Dry cough

MC cause of hypoxia ⟶ V/Q mismatch

Silent chest ⟶ Very severe asthma

Silent MI ⟶ Diabetes elderly

- Obstructive sleep apnea syndrome ⟶ Sudden cardiac death
- REID Index ⟶ COPD
- Severe anemia ⟶ Cyanosis is never seen
- Critical concentration of red hemoglobin ⟶ 4 gm
- Investigation of choice for lung sequestration ⟶ Angiographyh
- Loeffler's syndrome ⟶ Transient migratory infiltrates
- Loefgren's syndrome ⟶ Sarcoidosis
- Cavitations are seen in ⟶ TB/Sarcoid/Carcinoma/ Histoplasmosis
- Pulmonary fibrosis ⟶ Coal/Primary Biliary Cirrhosis / Ankylosing spondylitis
- MC infection in cystic fibrosis (CF) ⟶ Staphylococcus

MC recurrent infection in CF ⟶ Pseudomonas

MC infection causing death in CF ⟶ Burkholderia

ENDOCRINOLOGY

PARATHYROID

- MCC of Hyperparathyroid ⟶ Parathyroid Adenoma
- Howship lacunae
  Haversian canal
  Brown tumors
  Tufting of middle phalanges
  Pin head stipling
  Subperiosteal resorption
  } Hyper Parathyroidism
- Sarcoidosis ⟶ Vit 'D' excess ⟶ Hypercalcemia = Gamma interferon
- Renal Osteo Dystrophy ⟶ Hyperphosphatemia
- Pagets disease of bone ⟶ Only ALP is increased
- Osteoporosis ⟶ All values are Normal
- Hypercalcemia ⟶ MAD PENIS [Refer Mnemonics]
- MCC of Hypercalcemic crisis ⟶ Ca Breast
- MC presentation of hyper parathyroid ⟶ Asymptomatic hypercalcemia
- Treatment for hypercalcemia ⟶ **A B C D E F G**
  - Adequate diuresis
  - Bisphosphonate
  - Calcitonin
  - Dialysis
  - Edetate
  - Furosemide
  - Gallium
- Rugger jersey spine ⟶ Renal Osteo Dystrophy
- MC symptom/sign of osteoporosis ⟶ Compression fracture spine

- Hypocalcemia ⟶ Increased tendon reflexes
  Trosseau sign +
  Chvostet sign +
- No osteoporosis is noted in Hypothyroid and hypoparathyroidism
- Fibrous Dysplasia Progressiva ⟶ MC lab feature ⟶ Eosinophilia
  ⟶ MCC death ⟶ Infections
  ⟶ Ectopic bone ⟶ Metaplastic cells
- DKA = RBS = 250-600 ⟶ Diabetes -1
  ⟶ Ketones [+ ⟶ Rx (I)nsulin]
  ⟶ Acidosis
- HHC [Hyper Osmotic Hyper Glycemic Coma] ⟶ RBS = 600-1200
- Each 100 mg increase in RBS causes decrease of sodium by 1.6
- Autonomic neuropathy doesn't require intensive insulin therapy
- In DM-2, there is no ketosis as insulin is very high in portal vein
- DM-2 with infection requires insulin theropy
- Tenchkoff catheter ⟶ Peritoneal dialysis

  Showl solution ⟶ Proximal RTA

  Deafness [SNHL] ⟶ Distal RTA

  Bartter Syn with SNHL ⟶ type [4] [S-N-H-L]

Adrenals

- MCC of Cushings ⟶ Iatrogenic [steroid supplements]
- MCC endocrine cause ⟶ Pitutary adenoma
- MC Paraneoplastic cause ⟶ Oat cell cancer [lung]
- MC Adrenal Cause ⟶ Adrenal Adenoma
- MCC of primary Aldosteronism ⟶ Bilateral cortical Hyperplasia
- MC tumor associated Primary Aldo ⟶ Adernal adenoma
- Conn's syndrome ⟶ Adrenal adenoma

- Conn's syndrome → No edema
- Addisons disease → ACTH stimulation [↑ Calcium ↑ Potassium]

- SIADH → Cyclophosphamide/5-FU
- Growth factor → Cell growth → Tyrosine kinase
- Sheehan syndrome → Treat with glucocorticoids first followed by thyroxine and OCP
- Myxedema coma → TSH is marker
- Delayed reflexes → Hypothyroid
- Majority of storage form is T_4
- MCC of congenital hypothyroidism → Dysgenesis
- Papillary carcinoma thyroid with lymph node → I^{131} Ablation
- Metyrapone inhibits 11 β-hydroxylase
- ACanthosis nigricans is due to Adeno Carcinoma
- IOC for adrenal conns HRCT
- Acute hirsutism → Check DHEA levels
- Medical adrenalectomy → Mitotane/Aminogluthemide
- Necrobiosis lipoidica → Diabetes mellitus
- Insulin stress test → Acromegaly = Growth hormone
- Screening test for Acromegaly → IGF-1 levels
- Diagnostic test for Acromegaly → Growth Hormone levels
- Screening test for Cushing's → Low dose Dexa test

Diagnostic test for Cushing's → Low dose Dexa for 2 days

MCC of cushing's → High dose Dexa [iatrogenic]

- Pheochromocytoma ⟶ Adrenal pheosecretes Nor Adrenaline
  ⟶ Extra-adrenal secretes NorAdrenaline
  ⟶ Malignant secretes Dopamine + HVA
  ⟶ MC symptom ⟶ Hypertension
  ⟶ Screening test ⟶ Urinary metanephrine
  ⟶ Diagnostic test ⟶ CT
  ⟶ Diagnostic for extra-adrenal ⟶ MRI
- Pheochromocytoma ⟶ Increases BMR ⟶ ↓ weight
- Insulinoma ⟶ Increases weight
- Addisons disease has no insulin resistance
- Addisons has hypoglycemia
- Acromegaly has hyperglycemia
- Best marker for thyroid ⟶ TSH
- Jod-Basedown effect ⟶ Base down [deficient iodine] leads to joyous [Jod] thyroid [hyperthyroid]
- Wolf Chaikoff effect ⟶ Chai-koffee ⟶ Decreased mixing ⟶ Decreased organification
- Means Lerman scratch ⟶ In Left 2nd ICs ⟶ Thyrotoxicosis
- Histoplasmosis causes bilateral enlargement of adrenals
- Busulfan causes bilateral atrophy of adrenals
- Resistin is secreted by adipose ⟶ Insulin resistance

PSYCHIATRY

Time period for diagnosis:

Mania	- (1) wk	Rx – No – 3 months
Depression	- 2 wks	Rx 3 wks
Acute stress reaction	- < 1 month	
PTSD	- > 1 month	
Delusional disorder	- 1 month	
Adjustment disorder	- 3 months	
GAD	- 6 months	
Hypochondriasis	- 6 months	
Schizophrenia	- 6 months	
Schizophreniform	- 1-6 months	
Dysthymia	- 2 yrs	
Somatisation	- many years	

R_x of Choice

ADHD	- **Atomoxetine** (adult)
	- **Methylphenidate** (child)
OCD	- **Fluoxetine**
AN/BN	- Fluoxetine
GAD	- Fluoxetine
Panic attack	- **BZP**
Panic disorder	- **Fluoxetine**
Insomnia	- **BZD**/Zopiclone
Narcolepsy	- **Modafinil**
Night mares	- **Amytryptiline**
Erectile dysfunction	- **Sildenafil** (PDE_5)
Autism	- **Risperidone**
Rett's	- **Risperidone** - CBT
Tics	- **Halo peridol**

Somatoform pain	-	Fluoxetine
Specific phobia	-	Exposure
Social phobia	-	Fluoxetine
Impulse control	-	Fluoxetine
Seasonal affective disorder	-	Photo Rx
Melancholic depression	-	Fluoxetine
Atypical depression	-	MAOI
Psychotic depression	-	ECT
Antismoking	-	Vernacline Bupropione
Alcohol	-	Disulfiram chlorpropmite Naltrexone

PAEDIATRICS

MILESTONES

GROSS MOTOR

- 3 months – neck holding
- 5 months ---sitting with support
- 8 months ---sitting without support
- 9 months ---stand with support
- 10 months --- walking with support
- 12 months ---standing without support
- 13 months ---walking without support
- 18 months ---running
- 24 months ---walking upstairs
- 36 months ---riding tricycle

FINE MOTOR

- 4 months ---Grasps rattle or rings when placed in hand and bring it to the mouth
- 5 months ---bidextrous grasp
- 7 months --- palmar grasp
- 9 months ---pincer grasp

LANGUAGE

- 1 months --- Turns head to sound
- 3 months ---coo-ing
- 6 months ---mono-syllables(ma,ba)
- 9 months ---bi-syllables(mama,baba)
- 12 months --- two words with meaning
- 18 months --- ten words with meaning
- 24 months ---simple sentence

PERSONAL, SOCIAL

- 2 months --- social smile
- 3 months ---recognising mother
- 6 months ---smiles at mirror image
- 9 months ---waves bye-bye
- 12 months ---plays a simple ball game
- 36 months ---knows gender

CHARACTERISTIC HEART DISEASES ASSOCIATED WITH SYNDROMES

- Turners syndrome --- coarctation of Aorta, PDA > PS
- Downs syndrome --- endocardial cushion defects
- Edwards syndrome --- VSD
- Pataus syndrome --- VSD
- DiGeorge --- VSD
- Holt oram syndrome --- ASD + Rt sided
- Rubella --- PDA
- Marfans --- AR
- Noonans --- PS(infundibular)
- Alagille syndrome --- PS
- Lutembachers syndrome --- ASD(congenital ASD+ acquired MS)
- Williams syndrome --- AS+PS
- Tetralogy Of Fallots ---PS(infundibular)
- VACTERL --- VSD
- CHARGE --- TOF
- Scimitar syndrome --- PAPVC